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Editorials

THE MODERN TREATMENT OF LEAD COLIC

The paroxysmal pain of lead colic, which chiefly affects the umbilical region of the body, is supposed to be due to cramp in the colon. The pain is severe and requires morphine hypodermically and fomentations locally. The constipation, noted in this disease, is usually treated by Epsom salts with dilute sulphuric acid. To overcome the spasm of the involuntary muscular fibres of the intestine, induced by lead poisoning, physicians, in different countries, have resorted to the use of tincture of belladonna, administered internally. This medicine, which, for physiological reasons, is indicated in spasmodic contraction of involuntary muscular fibre, is, however, rather uncertain in its action, and, besides, owing to its possible rejection by vomiting in lead colic, its ordinary therapeutic effects may not be obtainable. To obviate this difficulty, some practitioners resort to hypodermic injections of atropine. Among others, Dr. Albert Mathieu, physician of the St. Antoine Hospital,

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Paris, has had happy results from this method of treatment in lead colic, an account of which he includes in an article he publishes in *Paris Médical,* 1 November, 1913, p. 505. As soon as a case of lead colic is placed under his care, one or two hypodermic injections of morphine is administered, in order to relieve pain and calm excitement. On the second day of treatment, atropine sulphate is given hypodermically, at first twice a day, in doses of half a milligramme (gr. 1/128), morning and evening; afterwards in similar doses three times a day. In some of the cases fomentations are applied to the abdomen, in others ice poultices are used. The patient is allowed to drink water in tablespoonfuls, half a litre (17½ oz.) being given for daily consumption.

Owing to the morphine, given on the first day of treatment, and the atropine sulphate injected on the second day, the cramping pains of lead colic are relieved. The vomiting ceases to trouble the patient on the third or fifth day in severe cases; in milder ones, this symptom is relieved immediately, and small quantities of milk and water are allowed. After the cramps and vomiting have been relieved, half a gramme of powdered scammony (gr. 7¾) is given as a laxative. Usually, two stools are obtained and, after the bowels move, the attack of lead colic may be looked on as ended.

In marked cases of the disease, Dr. Mathieu does not claim that the duration of the attack is notably shortened by his treatment; but he feels satisfied that patients find his treatment less painful and disagree-

able than the classical treatment, which consists principally in the administration of drastic purgatives. The chief object sought for in the purgative treatment of lead colic is to obtain the expulsion of the lead, which is contained in the feces of the patient. A premature excitement of the intestines and stomach of a patient, by the administration of purgatives, only tends to bring on spasm in the intestine and to excite vomiting. In such cases, lead colic ceases only when there is no more lead left to act on the central or peripheral nerve centres. In contradistinction to the purgative method of treatment, Dr. Mathieu contends that, while atropine given in small doses does not produce immediate sedation, it very greatly reduces the intensity of the symptoms of lead colic. As a result, spasm of the intestines abates and the action of a light purgative suffices to produce a stool. The evacuation of the bowels, which marks the cessation of the attacks of lead colic, is made possible, because the spasmodic attack has abated. In his opinion, it is not purgation which relieves lead colic; but it is rather the cessation of lead colic, which makes an evacuation of the bowels possible in that disease.

J. J. C.

IRRITATING DUSTS

While the discovery of Koch's bacillus has placed human tuberculosis in the category of infections, and while the transmission of tuberculosis by heredity is scouted, yet there are many non-specific sources of

irritations of the respiratory organs, associated with the working of trade industries, which add to the toll of mortality from tuberculosis. For instance, there is anthracosis, or coal miner's disease; there are metallic dusts, particularly oxides of iron, producing siderosis; there are mineral dusts, producing stone cutter's phthisis, or grinder's rot of the Sheffield workers, coming under the head of chalicosis; there is a disease of the lungs due to the inhalation of cotton dust, called byssinosis, and the elevator pneumonia of grain shovellers.

In addition to occupational sources of lung irritation, to which some persons in every community are particularly exposed, all the inhabitants of cities, in cold countries, are obliged to breathe air laden with smoke and other varied sorts of irritating dust. So much so, indeed, that the lungs of dwellers in cities are dark and coal-stained, contrasting in that respect with the lung tissues of dwellers in the country, where, even in adults, these organs present a rosy tint. Familiarity with danger breeds contempt for it, and, thus, the proud citizens of a great city become so filled with admiration of the city, so preoccupied with the struggles or luxuries of life, that they become careless of the quality of the air they breathe. The ordinary citizen, being fairly intelligent, may consult his physician; occupational workers, however, are under the control of work-masters, and should they wish to be free from the dusty air, which may be incidental to the work done in a shop or factory, they have to depend on the intervention of a municipal or provin-

cial sanitary inspector, or an instructed public opinion.

Thus, in attempting to reduce the prevalence of phthisis among the grinders of Sheffield, an informal conference was held in the Town Hall of that city, under the presidency of the Lord Mayor. It was pointed out, that, during the years before the Home Office regulations became operative, the death rate from tuberculosis among grinders was fifty per cent. It is not so high now, but there is plenty of room for improvement in the health of the men. The dust from the grindstones must be removed by exhaust plants, and the men themselves should help to keep the exhaust machinery clean. If they neglect to do so, inspectors, appointed by the municipality or the Home Office, should look after the working of the exhaust plants. Besides, some of the public-spirited citizens of Sheffield should take a hand in the work of hygiene, and, by dinner-hour lectures or homely talks upon health, try to enlist the co-operation of the grinders themselves. One feature of the Home Office regulations is, that the grinders, while at work, shall wear respirators—a regulation entirely in the interest of the men. This regulation, however, does not commend itself to the men, who, animated by a childish vanity, prefer to honor this regulation in the breach, rather than in the observance. A good many Sheffield grinders would sooner, it appears, perish from the inhalation of irritating dust, rather than add to the laughter of their mates, by wearing a respirator. It has also been proposed to substitute

emery wheels and stones for grindstones—a welcome change, if it can be clearly shown that the change would reduce the danger to which the grinders are exposed when they are at work. The use of exhaust plants in all kinds of shops or factories, where the air is made irritating to the lungs by the process of work or manufacture, should be made obligatory, and the exhaust plants should be regularly inspected for the purpose of keeping them clean. The wearing of respirators is a question which will have to be decided by the operatives themselves.

In reference to the pathology of lung disease, produced by irritating dusts, Dr. Osler puts himself on record as opposed to the view that they cause tuberculosis. He states "that chronic bronchitis and emphysema form essential parts of the process, and that, in late stages, there may be tuberculous infection." He acknowledges, however, that, in the fibroid areas of the lungs of miners or grinders, softening occurs, and the ulcers in the lungs contain a dark liquid. These ulcers do not attain a large size, unless a communication is formed with a bronchus, in which case they may become converted into suppurating cavities.

At all events, dusty occupations produce bronchitis and emphysema, and interfere markedly with the health and working capacity of the operatives in shop, factory or mine. After ulcers have been formed in the lungs, during the chronic stages of this disease, the sufferers are necessarily exposed to tuberculous infection. In men of strong build the onset

of tuberculous infection may not occur at an early stage; but what can one say about the fate of operatives of weaker frames, in whom the power of resistance to tuberculosis is less than the normal?

J. J. C.

GAS COOKING

Gas cooking really requires no eulogy to commend it to good housekeepers; but, apart from its economic advantages, it merits and should receive the cordial support of the medical profession. If gas cooking were generally employed in our cities, there would be a notable decrease in the murkiness of the atmosphere. Just for a similar reason, the burning of soft coal in grates should be suppressed wherever it is possible. How much brighter our skies would be! How much cleaner the work of the domestics who build the fires and clean the grates! When housekeepers extract such motes as these from their own eyes, they will see better to pluck the beam from the eyes of the factory owners.

In regard to the actual number of gas cookers and gas ranges in this city it is pleasing to know that a steady increase in their numbers is taking place. We are informed, by a reliable authority, that, in 1910, there were 40,000 of them, while in 1913, the number rose to 60,000. As gas is cheap here, there will be an even greater multiplication of gas stoves. Care should be taken, however, that special flues are installed in buildings where gas stoves are used. We

hold no brief from manufacturers of gas stoves, and we testify that under the management of housewife or chef, excellent cooking may be done on coal ranges, but just as good culinary results may be obtained from the gas-cooker or gas-range. The appearance of the food and its taste are the same as when cooked in the coal stove. Formerly, an idea prevailed, even among experts, though now abandoned by most people, that gas cooking tended to poison the meat, owing to the escape of gas fumes. The gaseous products are not absorbed by the meat, because meat during cooking is emissive and the pressure from within the meat effectively prevents imbibition.

The gas cooker is a labor-saving machine. Fuel may not always be available in sufficient quantity or of suitable quality to insure good combustion, and a cook may be blamed for a badly cooked meal, when the indifferent showing of the viands should be really chargeable to a poor fire.

The scientific method of cooking meat by roasting or boiling is to submit it first to a high temperature, in order to obtain the preliminary coagulation of the outer surface of the meat, thus retaining the juices inside the jacket and to follow up this process by the moderate and prolonged application of heat. For these purposes the gas stove is perfect. Besides, it is an unobtrusive sentinel, ever ready and effective for ordinary purposes during the day, or for the emergency of sickness during the night.

J. J. C.

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Original Contributions

THE NECESSITY FOR THE ROUTINE EXAMINATION OF THE NOSE AND THROAT

JANE P. SPROULE, M.B., M.R.C.S., L.R.C.P., TORONTO.

How many general practitioners to-day, how many even of our consultants, make it their practice to include the nose and throat in the physical examination of their patients?

A man comes to his physician feeling generally run down, easily tired, depressed, without his usual inclination for work, or perhaps with some definite trouble—indigestion, rheumatism, headache. The physician questions him closely with reference to all these symptoms, touching, in so doing, the function of almost every organ of the body. He examines his heart, his lungs, inquires as to his stomach and intestinal tract, examines the urine and the blood, but am I not safe in saying that in seventy-five per cent. of the cases, unless the patient definitely refers to it himself, he forgets or overlooks the nose and throat? He does not ask his patient, "Do you breathe freely through both nostrils? Do you take cold frequently and on slight provocation? Have you much nasal discharge or hawking and spitting? Are you subject to sore throat?" Does he always ask these questions even when the patient has sought his advice for ear-ache or a discharging ear, for a severe cold or an obstinate cough? For the discharging ear, he will syringe out the discharge and instil ear drops. For the cold, he prescribes aspirin or some similar preparation and a Glyco-Thymalin spray, and for the sore throat a spray or gargle and the application of astringents locally. All this is symptomatic treatment and very good, but the least important part of the physician's duty.

That same physician would not dream of dealing with pain in the region of the kidneys or of the chest by the administration of a sedative or a liniment. He would make a thorough

examination, not once, but as often as necessary, to satisfy himself as to the condition of the organ and the exact nature of the underlying cause. And there is an underlying cause for the discharging ear, the cold in the head and the sore-throat. These are only the occasional, outstanding features, the symptoms that call loudly to the physician, that occur only at intervals while the causative condition remains quietly working and producing other symptoms which go on unrecognized except by the careful physician who has come to recognize that the nose and throat, the entrance hall, the distributing office, so to speak, of the whole respiratory and alimentary systems, is not the least important part of these two great tracts, and who keeps his head mirror, nasal speculum and tongue depressor in the front row of his instrument cabinet and is as familiar with their use as he is with that of his stethoscope or urinometer.

I had intended discussing in this paper one of the newer branches of our work, but I have had impressed upon me within the last few weeks the necessity for closer attention to the more oft-recurring and less obscure pathological conditions, the conditions that, as I have said, are every day being overlooked by the physician, conditions easily recognized and easily remedied, attention to which will bring more gratitude from the patient and a reputation for thoroughness and care more quickly than almost any other branch of medical work.

Let me just cite a few cases to show you the truth in this statement.

A girl of nineteen years consulted Dr. Victoria Reid for what her mother and friends judged was kidney trouble. She complained of swelling confined to the face, very definite, more marked in the morning. On examination, the urine showed no sign of kidney trouble and no further evidence was found to support this theory. Continuing her investigation, Dr. Reid examined the nose and throat and referred the case to me, saying, "The patient has a catarrhal condition of the nose and I think the tonsils should be removed." I found a chronic catarrh of the nose, with an abundance of discharge and crusts, an atrophic rhinitis without the typical ozoenic odor. The tonsils were small and on this first examination I found no pus. I advised attention to the nasal condition, watching the result and

keeping the tonsils under observation. At the end of six weeks the report was: Swelling much less, comes less frequently and passes off more quickly. On a number of occasions I had examined the tonsils and found thin pus as well as cheesy matter. Consulting with Dr. Reid again, we decided to remove the tonsils. This was done November 12. The following have been the later reports: November 26, has had some swelling; December 3, only a little to-day for the first time; December 20, swelling has practically disappeared; January 10, absolutely free from swelling.

Let me give you in detail another case: A physician telephoned me one evening, "I am sending over to you a boy of ten years with adenoids. I know he has adenoids, although he complains of nothing but his eyes. He comes from the country and his parents have consulted many doctors, among them a nose and throat specialist and an eye specialist. The nose and throat man referred him to the eye man who pronounced his eyes perfect and referred him to his physician for general treatment." They went home discouraged. The child could scarcely hold his eyes open, the lids appeared too heavy, tears constantly overflowed upon the cheeks, the conjunctiva was injected and he looked and must have felt miserable. Their friends in the city persuaded them to come again to the city and see this doctor, who, by the way, is an old friend of the family, with the result that I got this emphatic telephone message. Copying from my case report, the symptoms in addition to the above eye symptoms, were, mouth breathing, frequent colds, frequent attacks of bronchitis. But these were only obtained on close questioning and always the mother came back to the eyes. I found a mass of smooth, well formed adenoid tissue in the naso-pharynx, and in the nose inferior turbinates large and boggy with definite varicose posterior ends. I advised operative attention to the above conditions as being necessary in itself to put the boy's respiratory tract into proper working order and to prevent these frequent colds and bronchitis, with all their train of injurious effects upon the system, and also as having a beneficial effect upon the eye condition. Now just here is where I failed. I hesitated to state my emphatic belief in the absolute cure of the eye condition. Speaking with the

doctor afterwards, I asked him why he was so confident. "Because," he said, "I have seen that condition many times, not so prominent in most cases, but still present if you look for it." The report from this case two months later was: Eyes quite cleared up, condition perfectly satisfactory. Here again, it is very evident, is it not, to whom the credit is due.

Had I time, I could cite many other cases showing the gratifying results to the careful physician of just this close attention to nose and throat conditions, but there is another side to touch upon, as the following case will show.

A girl of eighteen years came to my office about a week ago, referred, not by her physician, but by a girl friend. Her mother came with her but, I gathered very quickly, was opposed to anything being done, and the reason I also soon gathered. The girl's complaint was just this: "I seem to have a cold in my head all the time. I don't seem to get my breath right and it just makes me feel miserable. Mother thinks there is nothing wrong because the doctor says there isn't, but I'm sure there must be." "How long is it since you saw the doctor," I asked. "Six months, and I have seen several doctors since." "What do they say?" "Oh, they all say about the same—there is nothing wrong, my nose is a little red inside, it's just a little irritation and I'll grow out of it. I wouldn't have anything done. Better not to than to have things removed that should not be." And later, the girl told me the reason her mother objected. The doctor had said to her, "When you and I were young there was no such thing as adenoids or any of these nasal troubles and we got on very well. Why should it be any different now?"

Now this is one of the most common cases you will meet with in practice, in young people in their teens and also in adults, and if you will follow with me the examination of this case, you will see how interesting it is and how simple and instructive.

You have put your head mirror on and have quickly adjusted it (for every physician should be almost as familiar with this as is the specialist, otherwise he fails to see and therefore to properly diagnose his case). Inserting a speculum, (and for the first examination I always use a round hard rubber speculum as being more agreeable, or rather, less objectionable,

especially to children), first into one nostril and then into the other, merely observing what you see. In this case, it is not a free passage leading backwards towards the naso-pharynx. It is a red mucous membrane facing you, a full, rounded swelling, almost, or quite, touching the septum on either side. Our conclusion, then, from merely looking into the nose is what? that the patient's breathing space is narrowed, that she must make an effort to get the necessary volume of air (10,000 litres in the 24 hours) through this limited space, or that she must keep her mouth open, and that in this boggy tissue (for you can easily see that it is boggy by gently touching it with a probe), the slightest change in the atmosphere, the slightest exposure to draught or dust or to depression in the circulation, will cause a congestion, a lowering of the normal vitality of the part, a blocking of the nose, a pouring out of mucus which, if germs are present as is almost always the case, will develop into a muco purulent discharge and the patient goes through another siege of "cold in the head" and perhaps sore-throat, bronchitis, etc.

But, to come back to our examination, you can see nothing else in the nose and you know nothing of the condition of the post-nasal space. Then is it fair to your patient, who has sought your advice, to say, "There is nothing wrong, only a little swelling, a little irritation; you will grow out of it." Why not continue your examination a little further?

Moisten a cotton-tipped applicator in a 5 per cent. solution of cocaine and adrenalin and slip it gently between the inferior turbinate, this red, boggy swelling that you saw, and the septum. Hold it there a few seconds, and then begin very gently to massage the turbinate back and forth along its surface. How quickly you can reduce its size depends upon the nature and degree of the swelling, whether it is actual hypertrophy or not. In this case it required several fresh swabs before I could get any idea of the posterior condition, but while making this examination I discovered several things: first, that the hypertrophy was more marked the further back I went; that not only the broad surface but the lower edge was hypertrophied, and that this lower border dropped too low until, in its posterior half, it pressed firmly upon the floor of the nose, giving no possible space between; that there was an abundant discharge, and that

finally at the extreme posterior end there appeared a white edematous swelling which, by the use of my post-nasal mirror, I could see bulging into the naso-pharynx. This condition existed in both nostrils. Now, who was right, the doctor and the mother or the young girl herself? Does that nose require attention or does it not? If it does not, then the nose is a superfluous part of our anatomy and could very well be dispensed with. If it does require attention, then the physician should recognize this fact and properly direct his patient. If he does not wish to make the necessary examination himself, there surely is some specialist in whom he has confidence, someone to whom he can say, "Miss A. is complaining of her nose. I don't know whether it requires attention or not. I am sending her to you to find out." To the thorough, conscientious physician only these two courses are open.

Here is an entirely different case. A patient came to me, referred by his physician. He complained of throbbing, buzzing, and disagreeable noises in his left ear. He said, "The doctor says my nose requires attention." "What do you think about it?" I asked. "Well," he said, "I don't know. I didn't know there was anything the matter with my nose, but he says there is." I asked, "Do you take cold often?" "Oh, yes." "Have you any hawking and spitting?" "Yes, a great deal, especially in the morning." "Does your nose ever feel blocked?" "Yes, this left side does." And what did I find? A bony septal spur and a large posterior varicosity of the inferior turbinate. Both conditions easily remedied. And what was the patient's comment? "Well, I'm glad I went to the doctor. I was almost not going, for I was afraid it was almost too small a thing to bother about. He examined my nose before he looked at my ear, and he said if I let it go I'd keep on having trouble with my ear and in time I might go deaf."

Another patient came to my office last Monday night. "Could I do anything for his deafness?" "How long had he been deaf?" He first noticed it about eight years ago. "Had he consulted a doctor?" Yes, some time ago. The doctor examined his ears and said he could see nothing wrong. Asked if he ever had colds in his head, he replied, "Yes, very fre-

quently." And his deafness was always worse during the cold. What did I find here? Large posterior varicosities, almost polypoidal, hanging into the naso-pharynx and pressing on the mouths of the eustachian tubes; hearing for the watch in the left ear absolutely gone, in the right ear, only on firm pressure against the ear. A man in the prime of life, incapacitated for his business! Things small in the beginning may often assume immense proportions in the end when it is impossible to cope with them.

Now, let me hurriedly run over a few of the conditions for which the general practitioner should be constantly on the look-out. First among these I would mention *the early signs of ear trouble*—fullness, beating and noises of various kinds in the ear. And let me caution you against neglecting to examine the nose and naso-pharynx in these cases. In 99 per cent. of the cases it is there you will find the underlying cause.

Second, *nasal and post-nasal discharges*, or, as the patients commonly put it, catarrh. Here, of course, one must think of antrum, ethmoidal and sinus trouble, but in the large majority of cases the cause will be much more easily found in a condition of the turbinates, such as I have described above, or in the presence of a deflected septum or adenoid tissue in the naso-pharynx.

Third, *the simple cold in the head.* If I bring out no other point, I shall be satisfied if you take this with you into your general work. The cold in the head, with its endless sequelæ—bronchitis, pneumonia and their sequelæ, quinsy, otitis media, mastoiditis, sinus affections, etc.—is almost invariably due primarily to some pathological condition of the upper air passages. Does it begin in the pharynx, in a general redness of the pharyngeal tissues, spreading upwards into the nasal passages and downwards towards the bronchi—then examine the tonsils, often small and innocent-looking in themselves. Lift forward a little with some dull, bent instrument the anterior pillar and examine the mouths of the crypts; press backward and inward the body of the tonsil and watch the wormy debris or the creamy pus exude. Does it begin in the head, that is, in the nose, then look for the hypertrophied turbinate, the enlarged posterior ends or the deflected septum or that adenoid mass—that much-

defended tissue of our early infancy which some would still so carefully guard. We hear much of preventive medicine in these latter days, and it is good. What about preventive surgery? A man passes through an acute attack of appendicitis, and his physician advises operation in the interim. Sound advice, everyone says. Then apply the same principle to the nose and throat condition. Why allow your patient to go on year after year suffering from these repeated attacks of cold in the head, when probably all that is required to prevent the recurrence is the application of the galvano-cautery to the inferior turbinates, the nasal scissors to their lower edges, or the snare to the posterior ends. You are treating your patient for an acute cold. You learn that he is subject to these attacks. But your treatment is quickly successful and your patient is satisfied. Your duty, however, is only half done. Have you asked him to return when the cold subsides? Now, this is the rule I would have you remember: Every patient you treat for recurring colds should return for examination of the nose and throat at the expiration of the acute attack.

I have only casually touched upon conditions of the tonsil. Time will not permit any further reference to the subject except to say that one should never depend upon the patient's statement that he has had no trouble with his tonsils, or upon the mere appearance of the tonsil. You must examine the condition of the crypts and especially the upper hidden ones. If you neglect this, then you are ignorant of the true condition of the tonsil.

Again, I have made no reference to nose and throat conditions in children. It seemed to me when I began this paper that so much had already been said upon the subject of tonsils and adenoids in children that no physician, in the Province of Ontario at least, could be inattentive or negligent in this matter. But just a few days ago a mother brought to me her little boy of three and one-half years, not of school age, you will notice, and therefore still under the supervision of the family physician. The mother said, "The doctor told me not to have anything done, not until spring anyway, but a friend told me it should be done right away." The boy was a pathetic little figure with pale face and mouth hanging open, not sick, the

mother said, but getting thinner all the time, and at night she had frequently to waken him for fear he would smother or choke. I found huge tonsils meeting in the middle line and a mass of adenoid tissue as large as one tonsil. We can all very readily judge what the ultimate result would have been had this child been exposed to one of the infectious fevers.

I am convinced that the supervision of our school children and the resultant removal of adenoids and diseased and hypertrophied tonsils will show up in the reports of our Public Health Department in a greatly reduced mortality rate among children of school age, and the physician should stand in the same relation to the children under school age as does this public service to the school child.

PERSONAL IMPRESSIONS OF THE SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE

CLARENCE STARR, M.B., TORONTO.

Speaking at the meeting of the Surgical Section, October 21st, 1913, Dr. Clarence L. Starr said he was impressed on his arrival in the City of London to notice that the Medical Congress could make such an impression in a city of that size. There was much attention directed to the meeting by the daily newspapers.

One could scarcely move about the streets without coming across little badges of Lord Lister, a medal in bronze with the impress of Lord Lister on one side, and the date of the International Congress on the other side.

He said there were some seven thousand medical men, delegates, and with their wives and children made a number in attendance of about ten thousand.

There was not the number of outstanding men at this Congress such as was present at the Congress thirty years previous. There were giants in those days, Lister, Pasteur, Virchow. Such men as these were not at the 1913 Congress.

He said the reason for this was the fact that now there is so much inter-communication that what is being done in one country is known next day all over the world. One man's work is made known and repeated by so many others that whoever or wherever he is, the many know it, making it now impossible for anyone to gain a position so outstanding, and no man need now hope to attain it.

Dr. Starr named Professor Ehrlich as the man who gave the most definite idea to the Congress members that he was the leader there.

There were five general meetings of the Congress. At these meetings, as well as those of the sections, the number of different languages spoken was confusing, especially to Englishmen, whose language was used comparatively infrequently. The most used languages were French and German.

The Opening Meeting in Prince Albert Hall, with its seating

capacity of twelve thousand, was of interest, especially on account of the addresses of welcome by Prince Arthur of Connaught and Sir Thomas Barlow.

After Sir Thomas Barlow concluded his address representatives from every country were asked to speak on behalf of the country they represented. Then followed a conglomerate number of speeches in many languages. Those that came from Canada felt that their country was not properly represented in the speech from America.

The hall was crowded to the galleries on this occasion and also at the second public meeting, when Ehrlich gave his address.

The Surgery Section opened the second day, Sir Watson Cheyne presiding. A gentlemanly man of genial nature, he made a very efficient presiding officer.

At the section meetings one felt there was nothing of startling interest or startling newness to be noted and no country had a predominant number or predominant character of surgeons there. It was to be seen that the work of men in one part of the world was taken up by men in other parts; for example, the surgeons in Toronto were known in Japan, Russia, Holland, Germany and elsewhere. He said he missed much by knowing German moderately and being dull in the knowledge of French. Those who spoke in the latter language spoke so rapidly that it seemed almost impossible for their confreres to follow them. The Germans were easier for all to follow and particularly so in technical subjects.

Professor Bastianelli of Rome gave the opening address in the Surgical Sestion. He spoke in French on "Diseases of the Large Intestine." Speaking in a foreign language he was easy to follow, as it naturally followed he would be less fluent of speech than when using his own language.

The impetus Lane had given, especially in Intestinal Stasis played a large part in the discussion of the treatment of malignant disease of these parts. Some of the speakers were very radical, removing not only the large intestine, but following widely into, and removing the glandular structures of the retroperitoneal regions.

One was proud of the representatives from the United States and from Canada in their report of their country's work

in the surgery of the arterial system. Matas of New Orleans took the leading part in that discussion, Crile of Cleveland making a very good second.

The subject of the surgery of the brain was introduced by and followed by Cushing of Harvard.

The Orthopedic Section was presided over by Mr. Robert Jones and the work of this section would not have been the success it was without him. He made a very efficient presiding officer.

They had a very interesting dinner given by the President at the Automobile Club in Pall Mall. There Professor Putti of Bologna, in Italy, proposed a toast to the section's president, remarking that he was pleased indeed to repeat the two wards he knew in English: "Viva gratia Robert Jones."

The first general discussion was on Spastic Paraplegia. That subject was handled in a masterly fashion. The old method of treatment by tenotomies where there were contractures led to a moderate degree of improvement in attitude and ability to get about. The additional attention spoken of was by way of injecting the nerves with alcohol, paralyzing certain groups of muscles for a length of time, these regaining strength later when the opposing muscles had recovered their tone. Dr. Starr was impressed with the honesty and straightforwardness of Professor Foerster. The advocated division of the posterior spinal root nerves had been looked to as a very definite hope in these cases. Professor Foerster felt personally that the treatment gave hope in extreme cases only. In moderately severe cases he did not advocate that method of treatment, firstly, because of the difficulty of technique in the operation and secondly, because of the high mortality.

The subject of Scoliosis was ably dealt with by Abbott of Portland, Maine. He was at the Congress to take up its discussion with Lovett of Boston. Chance of Dresden gave an indifferent presentation of the work he had done. The man, outside of America, that gave the best impression of his orthopedic surgery was Jansen of Leiden, Holland. He is one of the chief Orthopedists on the Continent. Dr. Starr never met a man before who was such a linguist. His command of so many languages was wonderful. Jansen said it was due to the near-

ness of Holland to peoples speaking foreign languages, making it absolutely essential that a physician should speak several tongues.

In regard to tuberculous disease of the bones and joints, there was great difference of opinion, especially in the method of handling that condition. Calot, who at one time advocated breaking down of the deformity in Pott's cases, started with the suggestion that all joint lesions should be inoculated with a mixture of creosote and naphthol. He inoculates all with this mixture, and one felt, from what was seen at his clinic, that not only tuberculosis subjects, but sometimes those not having tuberculosis got the same dose. He takes all cases off their feet and, putting them in little donkey carts, sends them out by the sea, to be driven over the sands all day. They come in only for inoculation with the mixture. The impression was that one sees more cases of mixed infection there than at any other clinic in the world probably, due to the frequency of inoculation and attendant dangers of infection. I saw there a great many cases of discharging sinuses, and a great many cases of mixed infection.

Stiles of Edinburgh followed in discussion. Than this man there was no finer surgeon or type of surgeon in Scotland. His views were dissimilar to those that had preceded and he is very radical in his treatment of these joint lesions. The hips are excised, knees excised with regularity and the ankles cleaned out with equal regularity. The whole astragalus removed in even early cases. He felt that radical treatment of joint tuberculosis is the best. He was in the minority, however, holding such an opinion.

In Scotland, Stiles thought, some 70 per cent. of these lesions are of bovine origin. In Canada the percentage of bovine origin is only about 10 per cent. The results for Toronto are more satisfactory than they get there.

Rollier of Switzerland followed in one of the most interesting discussions of the congress. His treatment was fresh air and sunshine. His debate was impressive and no one could help but feel the honesty of his statements. His pictures were photographs of children undergoing treatment. His method of handling the cases was somewhat as follows: No matter what amount

of disease present, the child was exposed in a solarium for a few minutes each day, first exposing the feet, then the legs and thighs and finally the body, taking seven or eight days to complete this gradual and preparatory preparation for sun treatment. The eyes were protected by the use of smoked glasses. That few minutes' exposure each day was attempted to prevent sunburn. In this way pigmentation is the result and no smarting, blistering nor sunburn disturbances. In this way he treated all classes of cases. In the photographs he showed sinus cases brought in on stretchers. Those exposed over a series of months showed remarkable improvement. As soon as possible these patients are allowed exercise, sports, games, skiing, tobogganing, etc. Practically all his cases were restored to health by no other treatment other than altitude, fresh air and sunshine. Most interesting indeed was it, at his cinematograph exhibition, to see children of all stages and all types of the disease, in the summer, piling up hay, wheeling barrows, etc., and having such a good time. Following the same children into the winter, they were seen skiing, tobogganing, snowshoeing, with nothing on but diapers and sometimes with nothing except a hat summer and winter. He claimed they do not feel the cold and are as happy as can be. Dr. Rollier thought this treatment was not applicable to lower altitudes.

Dr. Starr thought something should be said in regard to the social atmosphere of London at the time of the meeting. At the picnic up the Thames, given by Watson Cheyne, one had opportunity of meeting in a social way the men of the section. Sir Watson Cheyne spoke and said how happy he was to have all the members present. J. B. Murphy moved a vote of thanks and this was seconded by Sir Lambert Ormsby of Dublin. He gave an interesting address and one story he told was that some member of the Congress had told him that he learned that germs came from Germany, parasites came from Paris, but that "*mike*robes" came from Ireland.

The closing and probably the most popular entertainment was the reception given by Lord Strathcona in the Botanical Gardens. He shook hands with over three thousand out of five thousand guests, and only ceased when he became tired out.

Society Proceedings

INTERNATIONAL CONGRESS OF MEDICINE

(Continued.)

Among the subjects dealt with by the Forensic Medicine Section (Professor Harvey Littlejohn presiding) was "The Medico-Legal Aspects of Infant Mortality," papers being read by Professors Etienne Martin and Moriquard, of Lyons; and Professor Dr. F. Strassman, of Berlin.

In the course of the discussion which followed, Sir William Collins said that as an old member of the House of Commons and the London County Council he could testify to the important progress made in this country both in regard to legislation and administration in connection with infant mortality. At the same time he could not help thinking that we had lagged behind in regard to the granting of death certificates for infants and the investigation of cases of infantile death We had no registration of the stillborn, and we had no certificate at the present time of the fact of death. We had a certificate of a sort as to the cause of death, but it was notorious that persons had been certified as dead who had, nevertheless, been still in the land of the living.

The President said that an important factor in diagnosing an alleged death from overlaying were the surrounding circumstances of the case. He might be wholly unable to diagnose death from overlaying from a post mortem examination; but if he were called into the house where the death had occurred and saw the child in bed without it having been disturbed, he might be able to make a diagnosis. While he admitted that cases of alleged overlaying in this country were very largely in excess of those in other countries, he thought that this was possibly due to a wrong diagnosis in this country. He believed that many doctors who were called in to see the bodies of children said "overlaying," whereas if proper examination were made death would be found to have been caused by something else.

FEEBLE-MINDED CRIMINALS.

Another subject discussed in the forensic medicine section was "The Feeble-minded Criminal."

Dr. C. F. N. Treadwell (medical officer, his Majesty's Prison, Parkhurst) said that the term "feeble-minded" or "weak-minded" was used in prison parlance to denote all kinds of mental disorder which appeared to indicate lessened responsibility. Excluding such cases of the imbecile type as were readily apparent on a cursory examination, it would, he thought, be found that the conduct of the prisoner in prison was often the first factor to draw attention to his case. This was shown by his apparent inability to conform to prison discipline, the frequency of his reports for misconduct, or his reaction when under punishment, which, instead of deterring him, provoked him to acts of insubordination of a more aggravated character.

When one found the same prisoner continually behaving in a similar manner, re-acting in the same way, and so regardless of the fact that his own self-inflicted discomfort was out of all proportion greater than the annoyance he was causing to others, the question arose whether he was fully responsible; whether his power of controlling his actions was fully up to what should be a normal standard; whether he had an average power of reasoning and judgment at the time; or whether the more elaborate mental processes engaged in reason and judgment were so slow or perverted that he could not be held to be completely responsible. It was, of course, difficult to justify a plea of partial responsibility, but this concept had become usual in practice, and without doubt had tended to modify the punishment awarded.

That some notice should be taken of these disorders of conduct, and some form of punishment, such as loss of diet, confinement to cell or room, or deprivation of privileges, must be administered would, he felt sure, be admitted by all who had had to deal with this class of criminal. To take no notice of his delinquencies would certainly be put down to weakness by the prisoner himself, and lead to continued acts of insubordination.

During the seven years that the Criminal Asylum at Parkhurst was in existence, out of 226 patients who passed through that establishment 136 had been previously classed as feeble-minded in the prison, *i.e.*, 60 per cent. The point was of interest in its bearing on the conduct of this type in the general asylum. It was considered by those responsible for their management very undesirable to have this type in ordinary asylums, and he could well understand the difficulty they created and the undesirable influence they exerted upon well-behaved inmates.

It had been suggested that this type of insane person should be treated in a criminal asylum and not in a general asylum. He was quite in agreement that careful segregation in separate establishments or blocks should be aimed at, upon a classification based upon conduct, and whether in asylums or in prisons or in institutions for feeble-minded, the more complete the segregation of one class from another the better the conduct of all was likely to be.

"The following point," added Dr. Treadwell, "has perhaps not been fully appreciated. When a feeble-minded criminal of the badly-conducted class is placed amongst those who are well conducted, he is, of necessity, kept under special surveillance, the attendants are constantly watching him, certain forms of labor, if he is of the violent type, are not open to him, privileged positions of trust are necessarily denied him, and he is in a continual state of discontent, brooding over a sense of injustice at the favoritism, as he calls it, which is shown to others. Does not the same treatment follow him everywhere, even to the asylum if he should become insane? His segregation in separate establishments, or blocks, where more equal privileges can be afforded, may lead to less discontent and less disorder of conduct."

VISITS TO HOSPITALS.

Members of the congress were given ample facilities for seeing the work of the great hospitals, and whilst it was possible for them to witness the routine work at these world-famous institutions on most days of their stay, a number of special visits and demonstrations were arranged. It was chiefly the departments of surgery that visitors from abroad took interest

in, and the interchange of ideas that occurs when surgeons of all nations meet in the operating theatres of one of the greatest cities in the world, necessarily makes for the advancement of surgical science.

There was a special visit of 200 members of the congress to the Middlesex Hospital. One of the chief interests of that institution is, of course, its close connection with cancer investigation, whilst the Barnato-Joel Institute for Cancer Research, which is associated with it is one of the latest and best-equipped institutions of its kind to be found anywhere.

At St. Bartholomew's the wards were open to the inspection of visitors, whilst at the Royal Free Hospital, the alma mater of medical women in London, the staff specially attended to point out the chief features of the work there. Visitors interested in hospital construction had an opportunity of visiting the splendid buildings of King's College Hospital, Denmark Hill, and of seeing what will be one of our finest general hospitals, able to accommodate an enormous number of out-patients and over 600 in-patients. To foreign scientists London is known as the home of treatment by injection of vaccines, for it was in the laboratories at St. Mary's that Sir Almroth Wright carried out many of the experiments that have brought fame to his system of therapeutic inoculation. A special demonstration was appropriately arranged by him in the bacteriological department there. The performance at the Royal National Orthopedic Hospital of a new operation for the relief of spinal disease by an American specialist was the occasion of much interest.

Many special hospital events were arranged for. Thus at Guy's there was a special operating day, and visitors from abroad had an exceptional opportunity of watching the surgical procedures which are associated with advances made at that celebrated institution. At St. Thomas's and St. Bartholomew's there were also operations; whilst at Charing-cross Hospital the nose, throat and ear departments were thrown open.

A special feature was a demonstration at University College Hospital of the latest means of examining and estimating the power of the heart. It will be remembered that recently a special department for the study of heart disease was opened

there, under the direction of Dr. Thomas Lewis, who gave illustrations of the important knowledge that is now obtained as a matter of routine by the electrocardiograph, which not only reads but graphically records the finest variations of the heart's beat. It is by means of this instrument that the most valuable additions have been made to our knowledge of heart diseases and the best remedies for heart weakness.

Morning, afternoon and evening there was ample choice of interesting relaxation for the members of the International Congress of Medicine. For the ladies who were accompanying their husbands, fathers, or brothers, there were again the well-planned visits to London's most famous sights in parties of twenty to one hundred.

Several notable luncheons were given, and in the afternoon there were three or four garden parties, which, fortunately, were not marred by the occasional heavy showers. The evening was occupied by the sectional dinners to the ladies specially connected with therapeutics, held at the Hotel Russell, and the members concerned with psychiatry, given at the Imperial Restaurant, Regent Street, while another dinner was given by the Society of Apothecaries. Receptions were held by the Royal College of Surgeons, by the Royal Society of Medicine, the Royal Army Medical College, the Worshipful Company of Grocers, Sir St. Clair Thomson, and Professor Arthur Thomson.

THE WOMEN DOCTORS.

Notable among the events was the luncheon given at the London (Royal Free Hospital) School of Medicine for Women to some seventy distinguished members of the congress. Mr. F. D. Acland, M.P., Under Secretary of State for Foreign Affairs, who is also chairman of the council of the school, presided, and among the ladies acting as hostesses and all connected with the school, were Miss Aldrich Blake, M.D. (acting dean in the absence of Miss Julia Coch, M.D.), Dr. May Thorne (honorary secretary), Dr. Louisa Garrett Anderson, Dr. May Dickinson Barry, Dr. Elizabeth Bolton, Miss Brook, Dr. Maud Chadburn, Dr. Helen Chambers, Dr. Winifred Cullie, Dr. Louisa Hamilton, Dr. Mary Scharlieb, Dr. Jane Walker, and Dr. Florence Willey.

The guests included Sir Clifford Allbutt, Sir Richard Godlee, Dr. Maude Abbott, Dr. Sarah Palmer, Dr. Esther Rosenkrantz, Dr. Mary Sasonova, and many of the eminent professors who are reading papers in various sections. Mr. Acland gave a short speech of welcome, and said that doctors had taught a great lesson to statesmen in emphasizing that there is a science of prevention. Mrs. Scharlieb, herself one of the pioneers in opening the profession to women, made feeling reference to the work of Mrs. Garrett Anderson, whose absence they so much regretted. The thanks of the foreign guests were expressed by Professor Tuffier, of Paris, who said that they had all been proud to have been entertained by the English women doctors.

BETHLEHEM ROYAL HOSPITAL.

Quite as much a revelation to many of the British members of the Congress as to their foreign confrères was afforded by the reception at the Bethlehem Royal Hospital. Lambeth Road is not exactly a fashionable or picturesque thoroughfare, and those who have to pass along it may have noticed vaguely the long range of buildings, with its fine dome in the centre and its handsome entrance. But they do not realize that this ancient and royal foundation for the care of the mentally afflicted possesses one of the most beautiful gardens in London, and that its general appointments and equipment are full of interest.

Some 500 members of the Congress were received here by the President, Sir Thomas Boor Crosby, M.D., the former Lord Mayor, and Miss Crosby, and among those present were the Lord Mayor and Lady Mayoress, who were conducted round the building by Dr. W. H. Stoddart, the resident medical superintendent. For each of the guests was a charming memento of their visit in the form of a learned and well illustrated history of the hospital, admirably written by its treasurer, Lieutenant-Colonel Alfred James Copeland, with an introduction by the Rev. R. S. Mylne, one of the governors.

THE FACULTY OF MEDICINE.

The Dean of the Faculty of Medicine of the University of London and Lady Pearce Gould gave a garden party at the College, Regent's Park, for which some 1,500 guests accepted invitations.

Many distinguished members of the Congress came in academic robes, which lent a brilliancy to the scene. Sir Thomas and Lady Barlow were present.

AUGUST 8TH.

At the close of the afternoon session of the International Congress of Medicine, on August 8th, Dr. Charlton Bastian, consulting physician to the University College Hospital and the National Hospital for Nervous Diseases, in Queen square, gave a remarkable demonstration of bodies said to be living organisms, and to have been spontaneously generated in the course of some of his experiments. At first sight this claim appears to be simple enough, because the mind scarcely realizes at once the magnitude of its significance. But Dr. Bastian, in fact, told the members of the Conference that he had performed certain experiments with chemical fluids, which at the beginning were absolutely free from living forms of any kind, and that during his investigations living beings—minute indeed, but nevertheless alive—came into existence.

This can have only one meaning, namely, that the distinguished investigator believes himself to have witnessed the origin of life itself. He started with chemical solutions from which all living things—even the tiniest microbes—were, as far as possible, rigorously excluded. He continued by sealing his solutions in tubes, to which there could be no entry of life from without. He then exposed them to great heat on three successive days; exposed them to temperatures that must certainly have destroyed all known living things, such as microbes, animalcules, or lowly plants of any kind. Dr. Bastian, indeed, carried out all these precautions with such thoroughness that it cannot be doubted that the sterilizing processes gone through were sufficient to kill any pre-existing living thing. Yet a few months after he is able to demonstrate in his sealed tubes forms of matter that even to experts have the very closest resemblance to elementary forms of vegetable life.

One asks the question, can it be possible that there is no error in the experiment—that, after all, this distinguished savant has found the key to the great origin of life in a small, sealed, glass tube, containing a simple mixture of metallic salts

and water? At the British Association meeting, last year, Sir Edward Schäfer created a great sensation by expressing the opinion that it is now not unreasonable to forecast the actual creation of new living matter in the laboratory, and he stated that, whilst it was out of the question to suppose that a highly-organized and complex being, such as a worm even, would ever be manufactured by scientific methods, there was no known difference between non-living and living matter from the chemical point of view, such as would make it appear an utterly hopeless task to build up the constitution of protoplasm (the essential basis of all living tissues), from simple chemical substances.

The most elementary forms of life of which we have any knowledge consist of little bodies like jelly, which, seen through the microscope, might be quite inert to those ignorant of their true nature; and it is an accepted theory to-day that even the most complex forms of life, such as the higher animals and man himself, are the product of long eras of evolution, billions of years, perhaps, being taken up in the advance from one small stage to another. So that the scientist would expect that, should his efforts to create life in the laboratory be rewarded with success, his production will be nothing more than a little jelly, invisible without the aid of a powerful microscope, yet differing from ordinary dead matter, in that it would have powers of reproducing itself, and possibly of some movement. Certainly, it would possess powers of building itself up anew, and replacing waste, from the fluids of its environment.

As Professor Schäfer pointed out, up to the time of the great Pasteur many authorities had believed in the constant creation of microscopic germs, and, indeed, believed that that was how microbes and small animal organisms arose—in the course of putrefaction, for example. However, since the brilliant demonstrations of that time showed conclusively that minute spores, literally seeds of microbes, would exist indefinitely in dry form or in liquid solution, resisting even great heat, and that these are the cause of the formation of microbes in solutions supposed to have been freed from them, few persons of eminence up to our own time have adhered to the old

beliefs. On the other hand, Dr. Carlton Bastian believes in such new life-generation.

With regard to such alleged forms of life, as shown by him yesterday, Professor Schäfer has said that he could not possibly believe that there had been no error in experiment. He stated that: "The appearance of organisms in such flasks would not furnish, to my mind, proof that they were the result of spontaneous generation. Assuming no fault in manipulation or fallacy in observation, I should find it simpler to believe that the germs of such organisms have resisted the effects of prolonged heat than that they became generated spontaneously. If spontaneous generation is possible, we cannot expect it to take the form of living beings, which show so marked a degree of differentiation, both structural and functional, as the organisms which are described as making their appearance in these experimental flasks."

He thus voiced the general scientific opinion of the day that these are mechanical productions taking the shape of living things. In this connection it is interesting to note that a distinguished botanist, unaware of its source, pronounced a certain specimen of Dr. Bastian's "organisms" to be a form of yeast.

The fact remains that Dr. Bastian not only showed bodies that to all intents and purposes are organisms resembling yeast and other moulds, but he further demonstrated similar specimens taken from other of his previous sealed tubes, which had been placed for several days under favorable conditions for stimulating their growth, and which appear to have multiplied very considerably. Dr. Bastian considers that his experiments conclusively show the origin of living organisms, which not only grow themselves, but can reproduce their species. He has carried on his experiments year after year in face of great opposition from other leading scientific men of the day, and for his own part is convinced that his theories are correct.

The solutions used by Dr. Bastian in his experiments consist of such simple substances as pernitrate of iron, sodium silicate, and phosphoric acid, mixed in certain proportions and dissolved in distilled water. After the mixing of a solution it is sterilized, and then simply exposed to the action of diffuse

sunlight for some weeks or months. Dr. Bastian himself believes that it is light that is the chief agent in the production of his interesting specimens.

THE USE AND SPREAD OF EPIDEMIC DISEASE.

The factors that determine the rise, spread, and degree of severity of epidemic diseases was one of the most important discussions at the Congress. Present knowledge with regard to this subject was summarized by Dr. Major Greenwood, of the Lister Epidemics Institute, and Professor G. Sticker, of Bonn, are well known to be periodical in not a few instances, but the reasons why, at times, infectious maladies suddenly arise and spread with great rapidity have never been thoroughly elucidated.

Certainly many of the causes responsible for outbreaks of infectious diseases are now clearly understood, and some of them, such as the influence of school holidays on the spread of scarlet fever and measles, are sufficiently obvious. Similarly, the carelessness of parents in densely populated neighborhoods in neglecting to isolate children attacked by whooping-cough is evidently responsible, to a great extent, for the terrible mortality and spread of this infantile disorder. But it is in regard to the effects of climate and place that our knowledge of epidemiology is deficient. Pneumonia, for example, recurs with increased activity each spring, and is responsible for between 40,000 and 50,000 deaths in this country annually.

Every year about Easter time hospital doctors know for certain that the number of cases of acute pneumonia (inflammation of the lungs) with which they will have to deal will shortly reach its maximum, whilst it will decline again as summer succeeds spring. Various explanations have been given, and blame has been thrown on climatic conditions and personal habits for this seasonal prevalence. Cold north winds, common in March and April, are supposed by some authorities to be the cause of the increase of pneumonia at that time; whilst others say that we ourselves are responsible, by being careless as to our clothing in our anxiety to welcome the spring sunlight, which, though bright, does not always bring with it warm days. Be that as it may, no certain conclusion has been come to in this connection.

"TYPHOID SEASON."

With typhoid fever, again, every medical student knows that there is a regular "typhoid season" in the autumn, which, even in these days, when that dangerous disease has been greatly lessened, is still noticeable in health records. It may be anticipated that the study of epidemiology, a science which, after all, is still in its infancy, will soon help us to understand why it is that such serious diseases should be more prevalent, and occur with such regularity, at certain seasons of the year.

We want to know, also, why there are noticeable waves of cholera and recurrent plague outbursts, such as occur in India from time to time. In our own country, again, there is a terrible infantile mortality associated with every hot summer: and, whilst certainly a number of definite causes of this maximum prevalence in dry summers has been ascertained, there are still many facts in regard to it that must be further investigated, before we can certainly prevent the greater part of this waste of child-life. Among those who took part in this discussion were Professor Sudhoff, of Leipzig; Dr. Brownlee, of Glasgow Fever Hospital; Dr. E. W. Goodall, superintendent of the large Eastern Fever Hospital at Homerton; and Dr. Hamer.

TRIUMPH OVER THE MOSQUITO.

Naval and military surgeons met in conjunction with the members of the sections for tropical diseases, to discuss the problems of Sanitary Organization in the Tropics, when Colonel P. Hehir, I.M.S.; Stabsarzt Dr. Hintze, of Berlin; and Professor Sir Ronald Ross, of Liverpool, will report on the systems at present in vogue. After all, it must never be forgotten that it is the triumph of man over the mosquito and other disease-bringing insects, as much as his conquests over savage races, that has opened up some of the most productive regions of the earth to civilized nations.

The successful accomplishment of the recent engineering feats in the Panama zone have only been possible by the eradication of the yellow fever scourge, which formerly rendered the districts through which the great canal has been led practically impossible for white laborers. Similarly, in the British Empire

large areas in Egypt and other parts of Africa have been rendered more and more habitable for British colonists, until it is doubtful if the once popular term of "white man's grave" can rightly be applied to any part of that continent which has come thoroughly under the administration of our Government.

Brilliant as have been the efforts of individuals in bringing about these satisfactory results, it is efficient sanitary organization that has finally made possible our chief victories over tropical disease. Much still remains to be done in India, Africa, and the Far East, to protect settlers, as well as natives, from the insidious pestilences that so quickly develop and gain the upper hand in tropical countries; but each year a greater knowledge is gained of the causes of these maladies, and a greater understanding obtained in regard to their prevention.

"TOOTH-BRUSH DRILL."

Considerable prominence has been given lately to the care of the teeth, particularly in regard to the younger members of the community. At the present time, children attending elementary public schools are instructed as to the proper methods of keeping their teeth in the best conditions for health, and at some schools a regular "tooth-brush drill" has been instituted. There is no doubt that the prevalence of defective teeth has a very considerable bearing on public health, so that the discussion on dental diseases in this relation, which has been arranged for this morning's session, has a considerable general interest. The debate was opened by Dr. J. Sim Wallace, of the London Hospital, and Professor Harold Williams, of Boston.

Following upon the papers already read as to the use of X-rays in diagnosing cancerous disease, reports were presented by Dr. Robert Abbe, of New York, and Dr. R. Kienboch, of Vienna, as to the position now arrived at in the treatment of cancer by X-rays and radium. This debate occupied the whole morning, and taken in special connection with the notable collection exhibited at the Congress Museum, demonstrating the wonderful cures that have been obtained by these curative agents in numerous cases of accessible malignant disease.

Other important papers of public interest included several on the development of the brain and eye, on methods of skin-

grafting, referring to that branch of plastic surgery which has risen within the last two or three years, by means of which tissues of one part are repaired by tissues from another; so much so, indeed, that surgeons are now able to replace such an organ as the nose by skin and other tissues taken from one of the limbs, whilst it is an operation of almost everyday hospital routine to replace skin which has been destroyed by a severe burn, with skin taken from the arms. Some surgeons have even gone farther than this, and endeavored to replace human tissues by those from various animals. There is an operation, indeed, in which frog skin is used to form a new skin for the socket of the eye when that all-important organ has had to be removed.

BRITISH HEALTH RESORTS.

Some of the advantages of British health resorts, from the point of view of foreign invalids, were pointed out by Dr. Neville Wood; whilst the "sun cure" was further discussed by Dr. Lennox Wainwright. Another item of the programme was a paper by Dr. Dreuw on "hydro-vibration."

At the same time, an important discussion in the Albert Hall on the question of the State control of a serious contagious disease must not be overlooked. The following resolutions were moved, and carried:

That, sensible of the ravages brought by syphilis in the health of the community, and deploring the inadequacy of existing facilities for checking its dissemination, the International Medical Congress calls upon the Governments of all the countries here represented:

1. To institute a system of confidential notification of the disease to a sanitary authority, wherever such notification does not already obtain.

2. To make systematic provision for the diagnosis and treatment of all cases of syphilis not otherwise provided for.

FIGHTING INFECTIOUS DISEASE.

The most numerously attended general session held took place in the Albert Hall, under the presidency of Sir Thomas Barlow, to hear an address on Pathology, by Professor Paul Ehrlich.

Dr. Ehrlich first made some eulogistic references to the part England has played in the fight against infectious disease. To prevent the spread of, and to heal, infectious diseases was at all times, he said, the highest aim of medical aspirations. However, a systematic pursuit of this purpose had only been possible in recent times, as through the labors of all civilized nations we had got an insight into the nature of infections, the cause of diseases, and the means by which they are transmitted.

The step from the laboratory to practice, *i.e.,* to the bedside, was an extraordinarily difficult and dangerous one, and could only be taken with the greatest care. Its difficulty and danger were due to the fact that in the case of men there existed idiosyncrasies, forms of super-sensitiveness, which did not occur in the case of animals.

For instance, with a large number of thoroughly healthy persons the use of harmless articles of food, such as strawberries, crabs, etc., brought about unpleasant skin eruptions, and almost half the known remedies could incite such phenomena of supersensibility. It would not be a cause of surprise, therefore, that such phenomena might occur in a particularly serious form with the employment of therapeutic agencies which contained such powerful acting radicals as arsenic and mercury.

Discoveries in regard to the ways of spreading diseases on the part of the infecting agencies had been made good use of in the fight against epidemics and for prophylactic measures, and had brought about an improvement surpassing expectation. Further, the struggle with diseases which had already broken out had been able to derive advantages from these discoveries, the most wonderful example being the diphtheria serum.

Now that the liability to, and danger of, disease were to a great extent circumscribed, so far as epidemics and many other diseases were concerned, the efforts of chemio-therapeutics were directed as far as possible to fill up the gaps left in this ring, more especially to bring healing to diseases in which the natural powers of the organism were insufficient. And he believed that now, when definite and sure foundations had been laid for the scientific principles and the method of chemio-therapeutics, the way was visible before us; not always an easy, but yet a practicable way. (Cheers.)

There were many valuable indications that in a series of diseases—smallpox, scarlatina, typhus exanthematicus, perhaps also yellow-fever, and, above all, infectious diseases caused by invisible germs—the prospects of success were brightening. But in contra-distinction to these super-parasites the ordinary or common bacterial diseases (diseases due to the streptococcus and the staphylococcus, coli, typhoid, and dysentery, but, above all, tuberculosis) would still require a hard struggle. Nevertheless, he looked forward with full confidence to this development also, and might, without being set down as an optimist, put forward the view that in the next five years we should have advances of the highest importance to record in this field of research. (Cheers.)

The audience cordially responded to the chairman's proposal that a vote of thanks be accorded to Dr. Ehrlich for his "splendid address."

X-RAYS AND CONSUMPTION.

In the Radiology Section, over which Sir James Mackenzie Davidson presided, Dr. Sydney H. Owen (London) read an important paper on "The value of X-rays in the early diagnosis of tuberculosis of the lungs from the standpoint of the physician."

He said that, the respiratory tract being, in the adult at any rate, one of the easier routes by which the tubercle bacillus gained access to the body, any investigation which conceivably might assist in the determination at the earliest possible moment of changes in the respiratory organs should demand their most careful consideration. Radiography of the lungs, in his opinion, opened up a wide field of investigation.

The subject was a very vexed one. Certain objections had to be met. There were at least two schools of thought. There were those who maintained that radiography could be of little assistance in the detection of tuberculosis of the lungs. This school maintained that similar appearances were found in bronchitis, broncho-pneumonia, silicosis, etc. It was stated, too, that the frequency of the lesions excluded tuberculosis as a cause. Then there were those who believed that systematic

radiography could be of considerable assistance in the early detection of tuberculosis.

From the standpoint of the physician it would appear to be extremely difficult to diagnose—he did not say to suspect—tuberculosis in its very early stages for at least two reasons—(1) the lesion in the lung being very small, the physical signs were, so to speak, "ultra-clinical"; and (2) the patient, being unconscious of ill-health, did not seek advice at this very early date.

This initial difficulty was increased where patients did not seek advice until some serious symptom of ill-health, *e.g.*, hemoptysis, obtruded itself upon their consciousness. In more favorable cases, where patients sought advice early, a systematic use of the rays in this early stage of slight symptoms with slight, doubtful signs would show enlarged caseous glands, and possibly, too, densities in the lungs. To those who believed caseous bronchial glands might be the first stage in the invasion of the lungs in patients who manifested ill-health for which no other adequate cause could be determined, such knowledge was of profound importance.

DOCTORS AND TEMPERANCE.

Two hundred doctors, drawn from all parts of the world, gathered at breakfast at the Grafton Galleries, prior to attending the Medical Congress, as the guests of the National Temperance League, and there were some interesting speeches on temperance and alcoholism.

Sir Thomas Barlow, who presided, said the progress of temperance in this country had been very remarkable indeed in almost every rank of society. It was delightful to chronicle the improvements that had taken place in the Army and Navy, and one of the great factors in this change was the way the officers looked after their men, and the striking example set in the officers' mess. (Hear, hear.)

In the commercial class the change had been enormous. It was now recognized that a man in these strenuous times was not fit for commercial life unless he had done with that old period of tippling and nipping. The administration of alcohol in hospitals had undergone nothing less than a revolution. The

old days when alcohol was ordered as a matter of course were, happily, passing away. Now the medical man, if he ordered it at all, prescribed how much was to be given and for how long.

They must not live in a fool's paradise, however, for the drink bill in England was enormously large. They had a most mischievous thing in the way of medicated wines. In the pathology of medicine nothing was more remarkable than the way in which alcohol annexed itself to, and reinforced, other poisons. "Do let us," said the speaker, "adopt the common-sense view and stamp out these medicated wines. Let us, if we are going to give alcohol, prescribe it direct, and not allow it to be taken in unknown quantities."

DOCTORS' EXAMPLE.

There was one thing which would do more good than anything else, and that was, if they would pardon him saying it, the example of doctors themselves. He begged those who had come to the conclusion that they could do better without alcohol, as he had, to speak out and use their influence. They would find that this was of great moral value, even to the poor inebriate in the last ditch.

Sir Victor Horsley said that the campaign against alcohol was not a new one. The medical profession lodged an objection to it two hundred years ago. In 1845 the profession again raised a protest. And now the great Medical Congress was setting up another landmark by their present meeting.

Sir Alfred P. Gould (vice-president of the National Temperance League) said they must submit this question of alcoholism to the most exacting scientific research, and then, as scientific men, insist that the teaching of science should become the basis of our national life.

JOINT MEETING OF SECTIONS ON CHEMICAL PATHOLOGY AND BACTERIOLOGY.

The two sections on chemical pathology and bacteriology and immunity held a joint morning session at the Royal College of Science, under the presidency of Dr. F. Gowland Hopkins, to discuss the subject of cancer.

Dr. E. F. Bashford, director of the Imperial Cancer Research Institution, opened the discussion with a discourse on the bearing of immunity reactions on the nature of cancer, his remarks being freely illustrated by lantern diagrams and photographs of experiments upon mice. Out of a great deal of work, he said, a very little had come. Renewed interest was being taken in the relationship between some forms of cancer and chronic irritation, and in the recurrence of cancer in various native races, it having been noted that the natives of some countries practised certain curious customs that altered the anatomical distribution of cancer. In India, for instance, where the wagon harness was attached to the right horn of cattle, it was always in the right horn and never in the left that cancer developed.

Turning next to the experiments, Dr. Bashford said the early experience gained from the grafting of cancer of the mouse had been amplified in the laboratories of the Imperial Cancer Research Fund by many experiments on other animals —dog, rabbit, guinea-pig, and rat—in all of which true tumors had been transplanted. Immunity signified nothing more than exemption, under clearly defined circumstances, of one individual from the consequences of transplanting a tumor from another individual of the same species.

The employment of the term immunity with reference to cancer in the present state of our knowledge was really wrong, because the resistance which could be induced artificially to the continued growth of grafts did not create any exemption from the liability to the development of cancer. It was also certain that cancer was rarely, if ever, communicated naturally or spontaneously from one individual to another by transplantation, and that its great frequency could not be explained in that way. The use of the term "immunity" could only be justified by convenience.

There was general agreement that the normal tissues of tumors of one species of animal were incapable of progressive growth, or even of continued existence, in another species, and in conjunction with other studies this had a bearing upon the question of whether an immunity was induced analogous to that against infective disease by showing that when induced it

did not depend on a virus common to cancer in whatever species of animal it occurred.

Although some tumor strains were relatively indifferent to age, no strain had been found which grew better in old than in young animals. Young animals were, as a rule, more susceptible than old. The rarity of cancer in the young was not due to constitutional resistance to growth, and its frequency in the old was not due to a constitutional change occurring with senescence, favorable to the growth of cancer in general. This conclusion had led to determining whether animals naturally suffering from the disease offered a more suitable soil than others for the growth of cancer in general. It was found that they did not do so. The growth of a tumor led to hindrance to the growth of the animal bearing it, so that very young animals might remain dwarfs as compared with others of the same age that had remained free from tumors.

A problem of great interest centred in the difference between the great susceptibility of grafts to active resistance, and the relative or absolute insusceptibility of established tumors. The contradiction was of primary importance in any discussion of the nature of cancer immunity. It had not yet been completely resolved. Some facts of great importance stood out as having possible bearings upon the nature of cancer. Tumors varied in all degrees in their power to induce resistance, and in their susceptibility to it, however induced.

The difficulty was that the loss of power to induce resistance on homologous inoculation was not combined with a loss of susceptibility to resistance. Loss of power to induce resistance, while having also local, had constitutional consequences. Insusceptibility to resistance would have similar consequences.

The delicate reactions thus far revealed had admitted of a little penetration into what a few years ago was quite unexplored territory. At present their study appeared to show that the etiology of cancer was complex, and compounded of both local and constitutional conditions. Although it was not yet possible to be sure of the interpretation of the few new facts and their relation to one another, any day might bring some other fresh fact or facts to light, permitting of a harmonious explanation. Further speculation must be avoided, for there

is need for more investigation in the new field of experimental biology which the study of cancer had opened up. (Cheers.)

Dr. Lazarus Barlow, of the Middlesex Hospital, referring to the work done at the hospital, said one of the great difficulties in regard to cancer and the chemical side of cancer lay in the fact that the disease was so mysterious in its inception and took so long to recognize, and was subject to so many degenerating circumstances, that one was never certain whether the changes found in the body of a person suffering from cancer were strictly due to the cancer or were accidental. For that reason, though he would not be unduly pessimistic, he believed the chemical side of the cancer question would first be satisfactorily dealt with when they were able to produce cancer artificially in animals at will. In the course of the discussion the kaleidoscope had been variously turned. He would give it yet another turn.

He had found in a considerable number of cases of cancer that the element of radium was itself present. Radium was a subject of such extreme potency, a substance concerning which we knew little, yet we knew sufficient to tell us that it was possible, he might even say probable, that many of the processes of the body were affected by it. It had been possible in his laboratory to show a number of conditions which must profoundly alter the fluids of the body whenever radium was present. He had found in a variety of normal tissues a quantity of radium which was represented by 1. In the non-cancerous tissues of persons with cancer the proportion was represented by 23. In the metastes it was 55, and in the primary site 51.

Apart from the question of the actual discovery of the elements of radium in cancer, he had investigated the amounts of radium in gallstones. The co-existence of gallstones had been noted in cancer for many years, and it had been suggested that cancer and gallstones had some close relation. Every gallstone had been in a gall bladder, and if the chronic irritation of gallstones was likely to produce cancer, one would expect that cancer of the gall bladder would be frequent. But, as a matter of fact, it was rare, and was always associated with the presence of a gallstone.

He had, therefore, investigated the amount of radium in different varieties of gallstones. Again, if the gallstones were taken from non-cancerous cases, there was practically no radium at all, or it was just on the verge of detectability, and might be represented by 1. Taking the gallstones in cancer generally, excluding cancer of the gall bladder, the amount of radium in the gallstones was represented by 5. The gallstones in carcinoma of the gall bladder were represented by 84.

He did not wish to push this question too far, but it was perfectly clear to his mind that in their future work with regard to cancer, whether they considered it from the point of view of chronic irritation or of chemical pathology, it was necessary to determine whether or not radium played a part in the problem. Further, it had been found in the laboratory that there was more potassium in cancerous than in non-cancerous patients. Thus he might fairly claim to have given the kaleidoscope a new turn. (Cheers.)

Dr. E. Freund (Vienna), Dr. Sophie Fuchs von Wolfring (Paris), and Professor von Wasielewsky (Heidelberg) also joined in the discussion.

(*To be continued in our next issue.*)

TORONTO ORTHOPEDIC HOSPITAL CLINICS

The following were some of the clinics held of recent weeks at the Toronto Orthopedic Hospital:

Nov. 22nd—Some Clinical Points of Special Interest in Orthopedic Surgery. Dr. P. le Breton, Buffalo, N.Y. Discussion opened by Dr. C. S. Wright.

Nov. 29th—Fracture or Disturbance of the Upper Epiphysis of the Femur, and a Consideration of Results with and without Treatment. Dr. C. S. Wright. Discussion opened by Dr. B. E. McKenzie. Lantern illustrations and cases shown.

Dec. 6th—The Language of the Abdomen. Dr. S. M. Hay. Discussion opened by Dr. H. E. Clutterbuck.

Dec. 13th—Breast Tumors. Dr. R. W. Wesley. Discussion opened by Dr. W. J. Wilson.

Dec. 20th—Ectopic Gestation. Dr. Herbert E. Clutterbuck. Discussion opened by Dr. S. M. Hay.

THE CANADIAN MEDICAL ASSOCIATION MEETING

It will be of interest to the profession generally to know that the next meeting of the association is to be held in St. John, N.B. It will extend over four days, the 7th, 8th, 9th and 10th of July next. St. John has excellent hotel accommodation and ideal weather in the summer time. The thermometer is rarely above 70 degrees and the nights are refreshingly cool and invigorating.

Preparations for the meeting are already well under consideration. The profession of the city is working as a unit to make it one of the most successful ever held by this association.

Medical men throughout Canada and elsewhere contemplating a holiday in which pleasure and profit may be combined, cannot do better than arrange to go to St. John next July.

RESULTS OF THE FIRST EXAMINATION UNDER THE NEW CANADIAN MEDICAL ACT

The results of the first examination under the new Canadian Medical Act are announced by Dr. R. W. Powell, registrar. Seventy-one candidates presented themselves at the examination. Forty-four were successful, eight were referred back to the council, having failed in not more than two subjects, and nineteen were rejected. Following is a list of successful candidates: L. A. Aubin, Rawdon, Que.; I. F. Belanger, Quebec, Que.; I. A. Bergeron, St. Antoine de Tilly, Que.; C. R. Bourne, Montreal; C. E. Brown, London, Ont.; I. Cumming, Ottawa, Ont.; A. P. Davies, Hull, Que.; A. S. Duncan, London, Ont.; J. B. Gallagher, Bath, N.B.; J. F. Grant, Montreal; E. H. Gray, Montreal; W. J. Hepburn, Montreal; L. G. Houle, Bras d'Apic, Que.; W. G. Hutton, J. J. Irven, J. A. H. Joyal, R. F. Kelso, Montreal; J. H. G. Lacasse, St. Genevieve de Pierrefonds, Que.; I. L. Lamy, St. Flore, Que.; A. Leger, Montreal; A. F. Macaulay, London, Ont.; F. H. Mackay, Montreal; I. F. MacKnight, Tamworth, Ont.; L. W. MacNutt, Ottawa, Ont.; A. A. Martin, Pierce, Neb.; A. J. McCalla, St. Catharines, Ont.; W. G. Morris, Vancouver, B. C.; R. L. Morrison, Barrie, Ont.; P. Nase, Verdun, Que.; J. G. Phillips, Labelle, Que.; W. S. Pickup, Fort William, Ont.; J. L. Poirien, Craigmont, Ont.; L. K. Poyntz, Tavistock, Ont.; A. L. Raymond, Williamstown, Ont.; A. Stewart, Ottawa, Ont.; J. W. Sutherland, F. S. Swaine, Montreal; A. T. Turner, Bowden, Alta.; E. J. O. Wolcott, Montreal; L. W. Walker, Hanover, Ont.; J. T. Wall, Kansas City, Mo.; W. G. Wallace, Metcalfe, Ont.; H. C. Workman, Kingston, Ont.

ANNOUNCEMENT OF AWARD BY THE SMITHSONIAN INSTITUTE OF HODGKINS PRIZE FOR ESSAY "ON THE RELATION OF ATMOSPHERIC AIR TO TUBERCULOSIS"

On the recommendation of the Committee on the Award of the Hodgkins Prize of $1,500.00 for the best treatise "On the Relation of Atmospheric Air to Tuberculosis," which was offered by the Smithsonian Institution in connection with the International Congress on Tuberculosis held in Washington in 1908, the Institution announces that the prize has been equally divided between Dr. Guy Hinsdale, of Hot Springs, Virginia, for his paper on "Tuberculosis in Relation to Atmospheric Air," and Dr. S. Adolphus Knopf, of New York City, for his treatise "On the Relation of Atmospheric Air to Tuberculosis."

The members of the Committee on Award were:

Dr. William H. Welch, Johns Hopkins University, Baltimore, Maryland, Chairman; Dr. Hermann M Biggs, New York City; Prof. W. M. Davis, Cambridge, Mass.; Dr. G. Dock, Washington University Medical School, St. Louis, Missouri; Dr. Simon Flexner, Rockefeller Institute for Medical Research, New York City; Dr. John S. Fulton, Baltimore, Maryland; Brig.-General George M. Sternberg, U.S.A. (retired), Washington, D.C.

CHARLES D. WALCOTT,

Secretary Smithsonian Institution.

Hospital Administration

CANADIAN HOSPITAL INTELLIGENCE

A Vancouver Hospital

More than $10,000 has been subscribed towards the new St. Paul's Hospital, Vancouver. The hospital is now nearing completion and efforts are being made to provide the necessary equipment.

Lord Dufferin Hospital

Lord Dufferin Hospital has celebrated its first birthday. Much of the success of the institution is due to the capable matron, Miss Barclay.

During the past year there have been thirty-six operations successfully performed, not one death having occurred by reason of an operation. Nurses have been sent out to attend the sick who could not be cared for within the building, and with such care has the hospital been conducted that at the end of the first year the Board of Management finds that after paying all expenses there is a balance on hand.

Hospital a Lemon

Since the city council of Edmonton turned over the administration of the Isolation Hospital to the General Hospital Board of the city, the board has been wondering how best it can administer the affairs of that hospital, and how it can have a suitable building constructed.

The troubles of the hospital board were recapitulated by its chairman, A. C. Fraser, for the benefit of the city council last night. Said Mr. Fraser:

"I am here principally to remind you that you handed up a lemon when you handed us the Isolation Hospital."

"The present Isolation Hospital is a pretty poor lay-out, to put it mildly," said Mr. Fraser, adding: "It is a shame to ask anyone to put those belonging to them into it; and the nursing staff is laboring under very great disadvantages."

The original estimates call for $100,000 building, but the board finds that a permanent structure would need $180,000, while equipment would bring the total up to $225,000.

Tuberculosis in St. John

There is no provision for cases of tuberculosis in St. John, as they are not admitted to either provincial sanitaria or general hospitals, and the necessity of providing a special hospital was impressed upon the city some time ago, when a man nearly died when wandering the streets looking for a place where he could find shelter. Legislation has been passed, a commission appointed, plans and specifications prepared, and at the quarterly meeting of the county council the commissioners are prepared to recommend that the work of construction be proceeded with.

Civic Hospital for Quebec

The new civic hospital for Quebec will be established at Beaufort. The site was procured from the Sisters of Charity.

Haileybury Hospital

A new hospital has been opened in Haileybury by the Sisters of Providence.

Hospital to Enlarge

The General Protestant Hospital will be enlarged when times get a bit easier. During the past year a $7,000 addition was made. The receipts pretty well balanced expenditure last year, thanks to the good management of the genial superintendent, Dr. D. M. Robertson.

Board Re-Elected

The Board of Trustees of Niagara Falls General Hospital re-elected the old Board.

Royal Jubilee Hospital

Four hundred thousand dollars are to be spent in renewing the Royal Jubilee Hospital, Victoria, B.C. Dr. H. Loring Rexford is the architect.

Baby Hospital

The Montreal Foundling and Baby Hospital is being incorporated, and will supply a most pressing need in the city of Montreal. Young women will be especially taught the care of the baby in the new institution.

New Hospital Scheme

The Ladies' Hospital Auxiliary of Summerland, B.C., are considering ways and means for the establishment of a hospital in that beautiful town in the Okanagan valley. The estimated cost is $12,000. Mrs. Lipsett is president of the board.

Hospital Extension

A $20,000 addition is being made to the General Hospital in Sherbrooke, Que., by Architects Loomis and Dakin.

Tuberculosis Hospital

The city of Calgary is planning to build a $30,000 tuberculosis hospital. The Clerk of the Council is J. M. Miller.

Winnipeg General

The new wings of the Winnipeg General Hospital cost $600,000. The accommodation is now 488 beds. Dr. Sinclair, formerly of Vancouver, is in charge.

New Buildings Needed

Dr. Lorne McGibbon, President of the Western Hospital, Montreal, has outlined a comprehensive scheme for extension and enlargement of the present plant.

Smallpox Hospital

A new smallpox hospital is to be built in St. Thomas by Architect Findlay. The old buildings will be burned.

Conference Assists

The Alberta Conference of the Methodist Church is assisting the villagers of Lamont and good country people around to build a hospital in Lamont. It will be of great service to the Ruthenians who live there.

Perdue Hospital

The Board of Trade of Perdue, Sask., have recommended the establishment of a hospital in that town. The council of Eagle Creek may assist. Mr. F. J. Batule is president of the project.

Grosse Isle

A four-story hospital, 200 x 75, is being built at Grosse Isle by the Dominion Government, presumably for sick or infected immigrants.

Another Hospital Wanted

Dr. E. S. Harding, of the Royal Edward Hospital, Montreal, is advocating another tuberculosis hospital for advanced cases.

Grey Nuns Busy

The Grey Nuns of Montreal propose to build a half-million-dollar hospital in Westmount. Alphonse Piché is the architect. The building will be 600 x 300 feet.

New Hospital on Ship Canal Route

A special hospital is to be built for use during the construction operations on the new Welland ship canal. Full details have not yet been made known, but *The Journal* understands that it will be well equipped with first-class accommodation and medical appliances. A site has been purchased by Dr. McCoomb from J. J. Fee, on what for many years was known as the old Haven's property, which lies east of Victoria Lawn Cemetery. Further particulars and details are reported to be obtainable in a few days.

Walkerville New Hospital

The new general hospital for this place, plans for which have been under consideration by the Walkerville Branch of the National Council of Women for nearly a year, was approved at a largely-attended public meeting held in King Edward Schoolhouse. The financial statement read by Major S. C. Robinson showed the sum of $30,000 already paid in, in addition to the securing of a suitable site which has been donated by Messrs. H. Walker and Sons. The building when completed will cost in the neighborhood of $50,000.

Haileybury Hospital

The new hospital at Haileybury has been opened. It will be much in demand in the Cobalt camp.

Measles Hospital

It is proposed to use a portion of the old General Hospital, Toronto, as a measles hospital.

Rebuilding

The old St. Boniface Hospital is to be rebuilt at a cost of $80,000. The architect is J. A. Senechal.

Over $2000 for Hospital

Welland County Ladies' Auxiliary of the county hospital raised $2,100 at the tag-day rummage sale.

SEVENTH ANNUAL CONFERENCE OF THE CANADIAN HOSPITAL ASSOCIATION

Toronto, Ont., October 20th, 21st, 22nd, 1913.

Evening Session, October 19th, 1913.

The President: I see the first thing is the reading of the Minutes. We will take the minutes as printed in the last report.

It next falls to my lot to read the Annual Address.

(Reads Address). (Applause).

We regret very much the absence of one or two people on our programme who were to be among the chief speakers this evening, but they have been unavoidably called away. We hope there will not be any other breaks in the programme. Dr. Howell, President of the American Hospital Association, wrote me that it was simply impossible for him to attend. I wrote him a second letter, and he said "I cannot possibly be present." So Dr. Young, of Rockwood Hospital, has consented to read Dr. Howell's paper: "Points for Inexperienced Superintendents in Purchasing, Receiving and Distributing Supplies."

(Reads.) (Applause).

The President: Dr. Howell's excellent paper is open for discussion. I hope we will have a free discussion on these papers. We would like to hear from some of you. It may be perfectly simple to some of us, but to others it may be more difficult, and some may have a simpler way of doing it which will help others.

Mr. John Ross Robertson: Mr. Chairman, rather than let the discussion go by default I would say that I think there is a great deal of truth in the remarks made by Dr. Howell in his paper. Of course there is a large difference of opinion on the question of buying supplies. Some hospitals adopt one

method, other hospitals another. In the hospital that I have the honor of being connected with, the principal articles—those that are required in large quantities—are bought by tender, but the smaller, the articles that are bought in smaller quantities day by day, are bought by the steward of the hospital, who in consultation with the Secretary, submits the prices, and the persons, if possible, that we are to buy from. Dr. Howell, whom I have the pleasure of knowing, refers to the Purchasing Bureau in New York City, through which supplies are bought for nearly all the principal hospitals in New York, and I think in some of the adjoining States. I remember when this bureau of purchasing was inaugurated some years ago. It was discussed, I think, at a meeting of the American Hospital Association, and doubts were expressed by some that it might not, that it would not, be easy to carry out; the theory was all right, but in practice they might not be able to carry it out; but from what I have learned I have found the idea has worked out to great advantage and that quite a lot of money has been saved by the institutions by the efficiency and the knowledge used by those who made the purchases under the auspices of this Association. As far as Toronto is concerned, I doubt very much whether such a bureau would be effective. We have two or three large hospitals, and we each have our own methods. For instance, in connection with the Hospital for Sick Children, we would just have to—well, it would mean a complete change, we have been working on our present system for the past twenty-five or thirty years, and we have found the plan to work out all right. I agree with the Doctor when he speaks about economy in using; it is a great essential. Of course economy in buying is an absolute necessity. In another part of his paper, or your paper, where you refer to the buying of necessaries in large quantities, I think that sometimes it is perhaps preferable to buy in smaller quantities, because the buying in large quantities induces perhaps the officials to use the stock with too free a hand.

I think that Dr. Howell has covered a lot of ground, I think in your address you covered a lot of ground. I think, Mr. Chairman, there is enough meat in that address of yours to keep us going in the line of discussion for about a week.

You said a good many things, and I think they ought to be discussed. My friend, Dr. Young, says, "Hear! hear!" It just reminds me of an allusion, if you will pardon me for digression, to a paragraph in your own address, Mr. President, where you refer to the Proprietary Medicine gentlemen who flood the country with pamphlets and use, I suppose, the newspapers for advertising their wares. I think there is this to be said with regard to that. Of course the public have no control over the number of pamphlets that are issued and printed and sent through the post to the addresses that are furnished by directories, but I can say this as a newspaper man that a great many of the newspapers—in fact, it is the aim of perhaps all newspapers—but I know this, that a great many of the daily newspapers in Canada, and perhaps in the United States, publish at least clean newspapers, newspapers that can go into the house of every citizen and that a child of seven or eight years of age can read from headline to the end without finding anything in them that would be unclean. Now, as I said before, I do not want to throw any bouquets at myself, but I do want to say this, and I think it is only fair I should say it, because I believe the ladies and gentlemen here would appreciate what I say: I am not alone in the application of the remarks that I am going to make, that in regard to patent medicine advertising, a great many of the newspapers in Toronto have thrown out—at least have edited the patent medicine advertisements that have come before their advertising managers; and I know that in the case of the *Evening Telegram* in the last eighteen months we have rejected over $12,000 worth of advertising; $12,000 of solid gain that we have refused to accept because the advertising was not clean. Well, there are other newspapers in Toronto that I believe are doing the same thing, and I believe the effort all over the country is to try to keep the newspapers clean so as to avoid what the Chairman has pointed out, the flooding of newspapers with advertisements and the country with pamphlets and booklets and other forms of literature that certainly should be consigned to the wastepaper basket.

I think the address by the President was a very excellent address. I was unfortunately not in Boston as I was in

Europe, but I have been to the American Hospital Association meetings for a great many years, and I do not know if I ever heard an address that contained so much meat as the address our President has given us to-night. (Applause).

Dr. J. N. E. Brown: We are all very much interested in the President's Address and in the succeeding paper read by Dr. Young. I do not know why the custom is in vogue of refraining from discussing Presidential addresses. I think the Address is one that raises a great many points, that, as Mr. Robertson said, might well be talked over by this Association.

Referring to Dr. Howell's paper, which certainly is an excellent one, I may say that Dr. Howell has made a special study of the subject of his paper. I recall some years ago visiting the hospital of which Dr. Howell has charge to learn something of their methods of buying and keeping track of their supplies. After making certain enquiries it seems to me that they have the best system of any hospital in America, and that was the reason I went there. The hospital at that time was under the superintendence of Mr. Ludlin, a very capable man. Dr. Howell, of Worcester, succeeded him, and I understand has made some improvements on the methods which Mr. Ludlin had inaugurated in the New York Hospital. Those of you who would like to find out something more of the subject of the bureau of supplies can do so by writing to Dr. Howell or any of the New York men for a little pamphlet which gives a description of how the New York hospitals do with respect to their buying. This bureau will extend the courtesies of the purchasing of supplies to other hospitals in the United States provided the amount purchased each year comes to a certain sum of money. I do not know whether it would pay Canadian hospitals to endeavor to take advantage of that offer. Perhaps the duty would make it not worth their while. But it occurred to me that something this Association might do would be to consider the question of having all the hospitals in Canada, or at least all those in Ontario, combine together and appoint one purchasing agent here in Toronto—perhaps Mr. Robertson's steward or the Purchasing

Agent of the Toronto General Hospital, who are buying so largely and I have no doubt would make better bargains—if the fifty or sixty hospitals in Ontario would form a small committee it might be possible for you to start a bureau here and thus save a good deal of money to the hospitals of Ontario. Something can be learned too from the Provincial Secretary's office, two representatives of which I see here. I understand they have also a particularly careful system of buying and issuing supplies. This paper of Dr. Howell's is a very commendable one, and I am glad to know that we will all have the opportunity of reading it over carefully in the transactions which will be published.

Referring a moment to the excellent address of Dr. Boyce, as to what hospitals should do to serve the community, I think there is a good deal to be said on that. We should let the general public know a great deal more than we do of what goes on in the hospitals. I think we should assist our medical students more than we do. I think the rural hospitals out of Toronto should secure to their senior graduates the privilege of going into the hospitals and getting some practical experience, following up their course by a year's practical experience in the hospitals of the Province. I think too—referring to that point a moment longer—that it would be better if our physicians and surgeons were trained better. One reason the fakirs and charlatans succeed is because our own medical profession is too ill-trained. Only yesterday I was talking to a gentleman who had consulted some of the medical men for certain common infections—the case had not evidently been properly diagnosed—he said an old Indian told him to take a tablespoonful of turpentine and inhale the fumes. He said he got very giddy and did not repeat the experiment. It seems to me that, if our medical men were better trained, there would be fewer of their patients who would be inclined to treat with these charlatans. Then I think, too, the hospitals should assist in the rural nursing. This appears to me to be a great problem. The people of the rural communities do not know yet the value of a trained nurse. About twenty years ago, after graduating from here, I was called to a farm house to look after three cases of smallpox. When I arrived there

I found the mother—it was in a German community—the mother was lying beneath a feather tick, a great feather tick on top of her. It was the custom, I believe, in that family to sleep with those feather ticks over them, and I can assure you I was not very happy until I secured a nurse from Toronto to handle it. An Irishman came to this country and he wrote home and he reported the good job he had, and he said he had nothing to do but merely to carry up hods of bricks eight stories and there were men up there to do all the work. The nursing problem is one that is a very important one in the country places. I think if nurses are introduced in the country places and they learn how much value a trained nurse is it will do a lot of good. In some places a medical man has what is called a practical nurse; some friend of the family comes in who does not do it very effectively or efficiently. I think we will hail the day when there will be trained nurses in every country community in Canada, and I think we can help to bring that about. Thanking you for the opportunity to speak. (Applause).

Mr. Vaughan: Some time ago I wrote to the Bureau of Hospital Supplies, New York, to see if Canadian Institutions could benefit by their arrangement and they said they did not think so. They said they went into it with fear and trembling. It went on for year after year and they said it was not only for New York, but for surrounding States, and I do not see why if it is successful there it cannot be in Toronto and the surrounding territory.

Mr. Robertson: I think we ought to put on record our testimonial to the excellent address of the President, and I have very much pleasure in adding to the remarks I made a motion of thanks to the President for the very able and excellent address that he has delivered. (Seconded by Dr. Young).

Dr. W. A. Young: In that connection, Mr. President, permit me to say that the remarks you made in connection with the sale of certain patent medicines are very much to the point. There is no question that it is getting worse and worse every year. Recently I had to preside over an inquest,

the case of a young girl who died in Toronto, which resulted from taking a certain medicine that was purchased in a drug store. In going into the matter I found that the trade here in Toronto was increasing at a great rate, that a certain class of druggist who has to make a living, no matter how, are selling great quantities day by day. Young girls suffering from their own indiscretion can go into any drug store and purchase at any time these so-called remedies, and very frequently at that. I found that the Criminal Code, at least in the opinion of a very prominent counsel down town, should be amended. At present any druggist can sell any of these remedies over the counter to anyone without any record having been made. Is it not time that this Association should take a hand in the matter and if necessary approach the authorities at Ottawa and, if possible, have an amendment made to our Criminal Code making such impossible. The Criminal Code is now so worded that in order to make that druggist liable it must be shown that he has a guilty knowledge of what that remedy is being sold for; in other words, that you must show that he knows that that preparation is going to be used for the purpose of bringing on an abortion; otherwise he cannot be convicted. It seems to me that this Association could do a great work, if our Secretary would take the matter up, in rendering such sales at least more difficult, and, if possible, illegal. I would like to second Mr. Robertson's vote of thanks to the President.

Dr. W. J. Dobbie: Knowing as I do the customary diffidence of the President on such an occasion as this I shall take the opportunity of putting this motion to the Association. (Carried unanimously).

We tender to you our hearty thanks, and if I were to take this opportunity to say anything else I would say that practically the whole programme of this Association is the individual work of the President.

The President: I thank you, ladies and gentlemen.

The next subject on the programme is not on the programme. (Laughter). Is Dr. Porter here?

Dr. Brown: He is not in town, I understand. Dr. MacMurchy will read Dr. Amyot's paper, who is unavoidably absent.

Dr. Helen MacMurchy: (Reads paper).

I am charged to express to you the great regret of Dr. J. W. S. McCullough, the Chief Health Officer of Ontario, and Dr. Amyot, the Chief Bacteriologist of Ontario, in their absence. Every arrangement was made by both these gentlemen to be present and their papers were prepared, but neither of them is accustomed as a rule to give a typewritten paper at a meeting. They have rather prepared the notes than the form of address, and on Friday they received a telegram from Washington calling them away at a moment's notice to a meeting of the International Boundaries Waterways Pollution Committee. I think the ladies and gentlemen will remember that Dr. Amyot was appointed to that Committee and that Dr. McCullough is also a member of the Committee. They were obliged to go, and that is why they are not here to-night. Dr. Amyot just before he left wrote down hurriedly in pencil a few notes of his address and asked me if I would present them to you this evening, which I have great pleasure in doing. Dr. Amyot's subject is "Sanitary Precautions in Hospitals."

(Reads paper).

Amongst those that need the hospitals' help most are often the very sensitive, the frightened, those that hear horrible things about hospitals. The parents consider them above all their other possessions, even their own lives. Be kind, very kind to them. Remember they do not know why or how you are going to do things. Do not be afraid to forget the rules now and then when it can make things easier for them.

The President: I do not think there is a subject that requires so much discussion and consideration as the one that has been taken up by Dr. Amyot, so I hope that we shall have a free discussion on this subject, and I am sure the reader of the paper, if I remember rightly, some two or three years ago wrote a very able paper on milk and I am sure she will be able to discuss this part of the work very fully. So this paper is now open for discussion.

Dr. Clarke: The points brought out in Dr. Amyot's paper are so obvious to all hospital people that I do not think there is any room for discussion, as the modern hospital that is not equipped on all these points is not up-to-date. Unfortunately we are being troubled here a little with flies, but we hope to have them all out in the course of a few days. So if you notice any while going through the hospital you will realize the fact that we are after them. We have not got them all. But all the other points I think are demonstrated in this hospital. All the new flies are pasteurized most carefully, and I think you will find other suggestions in the Sick Children's Hospital next door. I think they handle the milk supply most perfectly there. As far as the sterilization of dishes, etc., is concerned, I hope the members will take every chance to study all the points around this hospital. The hospital is open to all of you, and if there is any point you want elucidated, we will give you every opportunity to acquire all the information you wish.

(*To be continued.*)

The Physician's Library

International Clinics, Quarterly. Volumes 2-3, twenty-third series, 1913. Messrs. J. B. Lippincott Co.

To-day as never before medicine is a learned profession. It demands a breadth of culture, an accuracy of observation, a knowledge of humanity, a sincerity of purpose and evidence of the logical faculty such that none calls for greater. The high character of the subjects discussed, the often masterly presentation of, and the intimate acquaintanceship with the latest science evident in the contents of these volumes is most creditable to the profession. Witness such articles as the first two in volume two, which are of an eminently practical character, and which are worthy of the attention of every practitioner whatever may be his bent, and in whatever field he may be disposed to bestow his closest attention. Other articles are found scattered throughout both volumes, which are more distinctively clinical in character—such articles as will attract the attention of the practical man. While these are the general features of most of the articles found in these volumes, yet it must be said that there are some others which should scarcely be found in a journal of this character.

B. E. M.

The Practical Medicine Series, comprising ten volumes on the year's progress in Medicine and Surgery, under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume IV., Gynecology. Edited by Emilius C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and Herbert M. Stowe, M.D., Associate in Gynecology, Northwestern Uni-

versity, Medical School, Attending Obstetrician to Cook County Hospital. Series 1913. Chicago, The Year Book Publishers, 327 South La Salle Street.

The Practical Medicine Series, comprising 10 volumes on Medicine and Surgery and covering the best of the world's literature for the year, is now well known to the profession. The present volume on Gynecology is well up to the high standard of former volumes, covers the field well and will be found a valuable addition to the library of the general practitioner, for whom it is published. N. J. W.

The Medical Record Visiting List, or Physician's Diary, for 1914. Newly Revised. New York, William Wood & Co.

We are just in receipt of this 1914 Visiting List. It is as good as—perhaps a little better than—ever. Physicians will find it almost indispensable.

A Compend on Bacteriology, Including Animal Parasites, by Robert L. Pitfield, M.D., Pathologist to the Germantown Hospital; late Demonstrator of Bacteriology at the Medico-Chirurgical College, Philadelphia; Visiting Physician to St. Timothy's Hospital and Chestnut Hill Hospital, Philadelphia. Second Edition with four plates and 85 other illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1913. Price $1.00.

This is an excellent little work for the General Practitioner, who wishes to keep pace with the ever-increasing science of Bacteriology, and also for the student in medicine. Immunity, including Ehrlich's theories illustrated; the Wasserman Reaction, Toxines, Antitoxines and Vaccines are described in a very concise manner. The various germs are illustrated with stains and methods of examination, and an interesting chapter on Animal Parasites and filterable viruses concludes a work of 280 pages that is worthy a place in any physician's library. N. J. W.

Obituary

DR. R. J. TRUMPOUR

With the death of Dr. R. J. Trumpour on November 19th, Unionville lost one of its best and most highly respected citizens. He was born at Picton, Prince Edward County, sixty-two years ago, and had been a resident of Unionville for fifteen years.

Dr. Trumpour was a Freemason and an enthusiastic Orangeman, being past master and a charter member of Unionville L.O.L. No. 2038, also a member of the A.O.U.W.

He had been ailing for some time and was seized with a paralytic stroke shortly after getting out of bed. The funeral took place on November 21st to Picton, Ont.

DR. JOHN CAVEN

Just as THE JOURNAL goes to press, we learn with sincere sorrow of the death of Dr. John Caven, of this city. The news came as a shock to a large proportion of the profession, who were not aware of the Doctor's recent acute illness. Dr. Caven's passing away makes another breach in the ranks of our profession which will be hard to fill. To his widow we tender kindest sympathy in her sore bereavement.

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Editorials

BRITISH VITAL STATISTICS

THE health conditions of the British Isles are placed within the ken of any persons taking an interest in the subject, by the weekly publication of the vital statistics. In looking over the *Lancet* of November 8th, 1913, one notices that the weekly report of the statistics for the week ended Saturday, November 1st, shows the birth rate and death rate actually recorded during that week. The English and Welsh statistics based on a town population of 17,852,766 persons, show 8,805 births and 4,754 deaths. For the week under notice, the annual rate of mortality in these towns was 13.9 per 1,000 persons. Among the several towns, the birth rate ranged from 5.9 in Southend-on-Sea, 7.0 in Enfield, 7.6 in Ipswich, 7.9 in Walthamstow and in Carlisle, 8.1 in Darlington, 18.3 in Warrington, 18.4 in Walsall, 18.9 in South Shields, 19.1 in Oldham, 21.0 in Cambridge, 21.1 in West Bromwich. Of the 4,754 deaths registered during the week, 509 were referred to the principal epidemic diseases. Of these

509 deaths, 322 resulted from infantile diarrheal diseases, 51 from diphtheria, 49 from measles, 45 from whooping cough, 24 from scarlet fever, 18 from enteric fever, but not one from smallpox. The mean annual death rate from these epidemic diseases for the week was 1.5 per 1,000 persons. Of the 4,754 deaths, 1,229 occurred in London, and were equal to an annual death rate of 14.2 per 1,000 persons.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,259,600 persons at the middle of last year, 1,062 births and 635 deaths were registered during the week, the annual rate of mortality being 14.7 per 1,000. Among the several Scotch towns, the death rate ranged from 3.7 in Clydebank, 7.6 in Ayr, and 10.5 in Kilmarnock, to 15.8 in Glasgow and in Paisley, 17.3 in Dundee and 18.0 in Coatbridge.

Of the 635 deaths from all causes, 82 were referred to the principal epidemic diseases, 34 from infantile diarrheal diseases, 17 from measles, 14 from scarlet fever, 11 from diphtheria, 3 from whooping cough, 3 from enteric fever, but not one from smallpox. These 82 deaths from the principal epidemic diseases were equal to an annual death rate of 1.9 against 1.5 per 1,000 in the 96 large English towns.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,199,180 persons at the middle of the year, 575 births and 395 deaths were registered during the week ended Saturday, November 1st. The annual rate of mortality was 17.2 per 1,000 persons. The annual death rate for the week was equal to 21.2 in Dublin (against 14.2 in London

and 15.8 in Glasgow), 13.4 in Belfast, 15.6 in Cork, 17.8 in Londonderry, 10.8 in Limerick and 11.4 in Waterford, while in the 21 remaining smaller towns the mean death rate was equal to 18.8 per 1,000 persons.

The 395 deaths included 41, which were referred to the principal epidemic diseases. Of these 41 deaths, 27 resulted from infantile diarrheal diseases, 5 from scarlet fever, 3 from measles, 2 from enteric fever, 2 from whooping cough and 2 from diphtheria, but not one from smallpox. The mean annual death rate from these diseases for the week was equal to 1.8 per 1,000; in the 96 large English towns the corresponding rate did not exceed 1.5, while in the 16 Scotch towns it reached 1.9 per 1,000.

Dublin bears the sad pre-eminence of having the highest death rate of any town in the British Isles—21.2 per 1,000; but Cambridge, in England, with 21.0 is not far behind, and West Bromwich, with 21.1, is a very close second. J. J. C.

MEAT EXTRACTS

In Bulletin No. 267 (Laboratory of the Inland Revenue Department of Canada), Mr. A. McGill, Chief Analyst, reports on eighty samples, purchased throughout Canada as meat extracts, in February and March, 1912. The eighteen months, which elapsed between the collection and the analysis of the goods, coupled with the favorable notice given to most of them, speaks well for their keeping qualities. So

much so, indeed, that one is not surprised to learn that the percentages of common salt found in most of them were rather excessive. Meat extract is found in the market either as a solid mass, usually in cubes; as what may be called the normal extract, containing about 75% of solids, or, in fluid meat extracts, with solids below 75%. The Canadian Standard requires 50% of solids in fluid meat extracts. Of the eighty samples analyzed, twelve (12) were solid meat extracts; twenty-five (25) were normal meat extracts; forty-two (42) were fluid meat extracts; one (1) was a meat juice.

According to the Standard, the ash, representing mineral matters of the meat and added common salt, should not exceed 27% of the total solids; the common salt should not exceed 12%. On this head the Bulletin states: "In all the solid extracts the ash and salt exceed the limit named by the Canadian Standard for meat extracts." Fat is required to be not over six-tenths of one per cent. (0.6) of the total solids. On this head the Bulletin records "The Petrolic Ether extract shown in the table is essentially fat, and is decidedly excessive in seventeen samples. With four exceptions, these are solids extracts."

The nitrogen content of meat extracts is their important characteristic, and the information on this point given in this Bulletin is very full. According to the Canadian Standard, the nitrogen should constitute at least 8% of the total solid matter of a meat extract. This requirement is met by all but four of the samples. Two of them are not shown as meat

extracts, but as concentrates of meat and vegetables. A third was slightly lower than standard requirements; a fourth was distinctly below the standard in nitrogen.

An 8% nitrogen content does not suffice to place a meat extract among reputable products; much depends on the make-up of a product and some of them gave evidence of too much make-up. For instance, some of the samples, which meet the requirements as to total nitrogen in meat extracts, fail to meet it in another way. They do not possess a sufficiency of the characteristic and practically the only combinations giving value to meat extracts, viz., the group known as "the meat bases." In getting the nitrogen value of a meat extract, the analyst obtains its total nitrogen content, which appears in two forms, insoluble and soluble. The former of the two has no nutritive value and may be looked upon as so much waste material. In estimating the soluble nitrogen, the analyst first makes a tannin salt precipitate, which consists of the soluble proteids and their closely related derivatives: the protoses, peptones and gelatine. A filtrate is then made from the tannin salt, which contains all the meat bases, that is: all the nitrogen in amidic combination. The names of the best known of these are creatine, creatinine and zanthine. According to the Canadian Standard, the nitrogenous compounds in meat extracts should consist of not less than 40% of meat bases and not less than 10% of creatine and creatinine, and such standards are obtained in genuine meat extracts. Meat extracts

made from good, juicy meats reveal their nitrogen content in the form of soluble meat bases; meat extracts made from poor, tough meat, fortified by the addition of pulverized beef, reveal the manufacturer's assistance to nature, in the high percentage of insoluble nitrogen discovered by the analyst. Whereas true meat extracts show less than one-half of one per cent. of insoluble nitrogen, false meat extracts give from one to two per cent. of insoluble nitrogen—in other words, nitrogen devoid of nutritive value and unassimilable. In subsidiary tables, the analyst places the eighty samples under nineteen heads, according to their trade names. Names are withheld in this editorial; but in a future one it might not be amiss to publish the names, so that our readers might be in a position to judge of the value of the respective products now on the market, and to give merit its due.

J. J. C.

INCOMPLETE APPENDICECTOMIES

The fashionable operation for appendicitis—that is to say, the removal of the appendix through a button-hole opening, made in the abdominal wall—receives some hard knocks from Doctor de Frenelle, who spoke at a meeting of the French Congress of Surgery last year. He showed the important part played by adhesions and other lesions in neighboring parts, which were unobserved during an appendicectomy, when that operation was done according to the technic in vogue at the present day. So true, indeed, is this

remark, that a good many surgeons, allowing themselves to be preoccupied by an easily understood anxiety to avoid making a long incision, do their utmost to remove an appendix by a buttonhole opening, made in the wall of the abdomen. Occasionally, these operators feel gratified, if, during the progress of their appendicectomies, they never see anything of a pathological nature, except the appendices themselves.

Some of the lesions associated with appendicitis are: epiploitis, the importance of which has been frequently adverted to by Walther; right ovaritis, many cases of which have been noted by Richelot; kinks of the lower part of the ileum, arising from adhesions, the consequences of which, owing to the production of intestinal stasis, have been described by Sir Arbuthnot Lane; pericecal and pericolic membranes, noted by Jackson. Now, any one of the above lesions may be present in a given case, and yet be unrecognized by the operating surgeon, while the patient, though an appendicectomy has been done, will continue to suffer from disorders arising from the lesion which was not observed. Doctor de Frenelle thinks that, without disregarding the esthetic side of an operation—the side which seems to interest surgeons and their patients alike—the surgeon should above all strive to do complete operations, in order to effect perfect cures.

When operating for chronic appendicitis, the chief points he keeps before him are: to have a clear view of the operative field; to see the last four inches

of the ileum; the angle of junction of the ileum and cecum; the cecum and the ascending colon; the epiploon, the right ovary, and, when doubt exists, to explore the gall bladder. In order to conceal, as much as possible, the scar made in the abdomen, he thinks it should be placed in the sub-pubic region. To get the minimum of scar, with the maximum of light, during an operation, he finds the employment of good dilators indispensable. In fine, he puts the case in this wise: "To fish for the appendix through an opening two or three centimetres long, without trying to get a clear view of the neighboring organs, is to take the risk of doing an incomplete appendicectomy, the principal objects sought for being to leave a trifling scar in the patient's body, and to win a reputation for doing quick and clever surgical work." Doctor de Frenelle's strictures harmonize with those expressed recently by Sir Arbuthnot Lane, in a clinical lecture on chronic intestinal stasis (*Medical Press and Circular,* November 11, 1913). Speaking of acquired intestinal bands and intestinal stasis, he asked why the bands had not been observed or described before. The reason was, that the surgeon had been accustomed to doing his operations through little holes, and he knew practically nothing of what was inside the abdomen. Such ignorance led this type of surgeon to know as little of actual conditions as did the physician. He got into the habit of doing certain routine operations, and, instead of wondering whether he was doing the right thing, he simply argued, and spread himself on the details of the operation. J. J. C.

FROM PANAMA TO THE RAND

Col. William C. Gorgas, whose magnificent work in the canal zone made possible the completion of this great new waterway by Colonel Goethals, has been invited by the authorities at Johannesburg to visit South Africa and deal, as a consulting specialist, with the pneumonia scourge and other endemic diseases.

From a region practically at sea level to one at an elevation of 6,000 feet is surely somewhat of a change.

Under Colonel Gorgas yellow fever in Panama has been stamped out, no endemic case having developed since 1906. He and his fellow workers have at the same time reduced the cases of malarial fever from 1.200 per 1,000 of population—more than an average of one case for each person—to 81 cases per 1,000 of population.

The wish that he will win for humanity as signal a victory in the dark continent as has resulted from his labors in Central America will follow this great scientist.

Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA

By Dr. Frederick W. Marlow, F.R.C.S., F.A.C.S., Toronto.

The fourth Clinical Congress of Surgeons of North America, held at Chicago, was particularly noted for the very large registration of members. In fact, this was so large that it was extremely difficult, if not impossible, to see what one most desired.

Since its inception the Clinical Congress has grown in popularity to an extraordinary degree. The desire to see a well-known surgeon working in his own natural surroundings is a very strong inducement to other surgeons to attend, and there is such an abundance and variety of work demonstrated by so many thoroughly good men that large numbers of general practitioners take and appreciate the opportunity of replenishing their store of knowledge on surgical subjects.

This popularity of the Congress was in part responsible for the crowded clinics, but there were other special contributing features. Chicago is favorably situated and is widely recognized as a most important surgical centre. Members came from all parts of the United States and from Canada, too. In fact, it was most interesting and pleasant to meet so many friends of former years who had come from all parts of the Dominion, and many of them from locations in the United States as well. Then, too, the incidence of the first convocation of the American College of Surgeons on the evening of November the thirteenth, attracted many men from various parts of the continent who might otherwise have foregone the pleasure and profit of the week in Chicago.

For those particularly interested in gynecology there were many clinics provided by gynecologists, and on the general

surgical programmes a fairly large number of gynecological cases found a place.

It would almost appear from a perusal of the daily clinical programmes that gynecology in Chicago is not so distinctly a surgical specialty as in some of the Eastern cities, but is rather to a large extent in the hands of the general surgeons. Yet there are, fortunately for the progress of gynecology, a fair number of thoroughly competent men devoting their entire attention to this branch of work, and keeping it to the front. It was not in the gynecological programmes that one saw in the list of operations such items as "ventral fixation" and "ventral suspension," operations which are now obsolete because they were anatomically and physiologically wrong.

For some reason, which is not quite clear, most general surgeons in Chicago, and this may be true of some other cities as well, by their opinions expressed publicly, have shown a great appreciation of intensive work in any department of surgery other than gynecology. They seem to regard gynecology as having reached its zenith, and to-day while they are so intensely interested in the unravelment of what is best in gastric and intestinal surgery they have not noticed the quiet advance of gynecology.

Much progress has been made in the perfecting of gynecological diagnosis as a result of closer attention to gynecological pathology. In fact, it is but seldom that a true picture of the pelvic condition cannot be stated without resorting to exploratory laparotomy, an operation so frequently performed in former days and one which is always an acknowledgment of failure in diagnosis.

Repair of the pelvic floor is now neither a skin-deep operation nor a bringing together of fascial structures, but is a thorough repair of what is really the lower wall of the abdomen. Everywhere the structure and function of the pelvic floor are receiving due appreciation and it is now generally recognized that the muscle of the floor is the part demanding attention, and that the essential features of a successful operation are the establishment of an efficient muscular sling and the restoration of the proper direction of the vagina and the shelf-like support given by a properly supported posterior vaginal wall. To

accomplish this the levatores ani muscles must be located as definite anatomical structures which may be brought together between the rectum and the vagina. Their exposure is accomplished by a separation of the posterior vaginal wall from the rectum extending well out to the sides.

This is in reality the Tait flap-splitting operation, but it has been subjected to a great many modifications especially in the methods of stitching up after the dissection is complete. The present tendency is towards the employment of buried sutures of chromic catgut to bring the muscles together and of superficial silk-worm gut stitches to unite the fascia and skin. Some use catgut throughout, using a subcutaneous stitch to unite the skin edges.

One can feel much safer now in using catgut than in former years, owing to the fact that the present methods of preparing it are much more reliable.

Of all the methods used in suturing the muscles with catgut the figure 8 stitch, as placed by Dr. Channing Barrett, seemed to the writer to give the maximum effect with a minimum amount of stitching. A trial of this method in several cases since the Congress has considerably strengthened the opinion.

Operations for retro-displacements are still fairly numerous, but the Gilliam operation of suspending the uterus by changing the location of the round ligaments in the abdominal wall, is the one generally recognized as the most efficient, and in its modified forms the most free from dangers. The original Gilliam operation has been largely abandoned for the modified forms, and to these some surgeons have attached their names though the principle of the operation remains the same.

Gilliam's operation leaves a space between the outer end of each round ligament and the abdominal wall, which some surgeons have accorded the possibility of producing intestinal obstruction. Early modifications closed these spaces by suturing the outer ends of the ligaments to the anterior abdominal wall as far in as the point of emergence of the loop of the ligament. This procedure is somewhat tedious but gives a very efficient result. To obviate the necessity of this, various surgeons adopted a different method of bringing the round ligament loop to its point of fixation to the abdominal aponeurosis.

In brief, by this method instead of puncturing straight through the aponeurosis, the rectus muscle, the transversalis fascia and the peritoneum, as in the Gilliam operation, the surgeon, with a specially curved forceps for the purpose, after piercing the aponeurosis, or going immediately under it, passes the forceps beyond the outer edge of the rectus and below the lower border of the internal oblique muscle to the region of the internal ring. Then piercing the transversalis fascia and the peritoneum just internal to the point where the round ligament joins the abdominal wall, he takes the loop of silk on the ligament and draws it up through the circuitous puncture, bringing the loop of ligament with it to be fixed to the aponeurosis.

This operation does not leave any possible hernial space inside the abdomen, and is much less tedious than obliterating the spaces inside by suturing as suggested above. It remains to be seen, however, whether the method does not interfere to any extent with the integrity of the inguinal canals.

The pull of the ligaments is practically in the same direction as in the Alexander-Adams operation on the ligaments at the internal rings, and it is questioned whether it has any decided advantage over the latter operation except that inasmuch as the ligaments retain their peritoneal covering the anterior layer of the broad ligament is considerably tightened up, and being an intra-abdominal operation it is suited to any case in which there are adhesions or any other pelvic condition demanding attention. The straight, forward pull of the ligaments in the Gilliam operation may be slightly more efficient in retaining the uterus in anteversion, and with a careful obliteration of the spaces as mentioned above it has proved itself to be a very commendable procedure and free from dangers.

Regarding the Baldy-Webster operation, which never did appeal strongly to the writer because of its distorted anatomy, one distinguished gynecologist in Chicago was heard to say that when the operation first came into use, Chicago surgeons felt that in justice to their confrere, Dr. Webster, the operation should be called Webster's, but that since a recent report made on the various operations for retro-displacements they felt that in justice to Dr. Webster the operation should be called Baldy's.

Recognition of the ease with which the anterior vaginal wall may be dissected away from the bladder and the urethra has

done much to modify and to render efficient the operation of anterior colporrhaphy in the treatment of cystocele and uterine prolapse.

Dr. Webster gave special attention to plastic work on the pelvic peritoneum following the removal of the pelvic organs for various conditions in the presence of adhesions. He showed clearly that by conserving as much as possible of the pelvic peritoneum one is usually able to cover over all the raw surfaces. The peritoneum may be sewn to the meso-rectum and also to a properly selected portion of the rectum as well, leaving all raw surfaces below the line of suture, and if considered advisable the space below may be packed and drained into the vagina.

Dr. J. F. Percy, Galesburg, Ill., was a visitor at the Congress, and an opportunity was afforded him of demonstrating his method of treating inoperable uterine carcinoma by high degrees of heat. The writer had an opportunity of closely observing his technique at the Wesley Hospital. Briefly, the principle on which his treatment depends is that the new proliferating cells are destroyed by a considerably less degree of heat than the cells of the normal tissues. He has a special speculum for stretching the vagina and operates with a large electric or actual cautery through a water-cooled speculum which protects the vagina.

Before he applies the cautery, an assistant opens the abdomen, and after freeing the uterus and adnexa, with the hand constantly on the uterus or other involved parts, guides him in directing the cautery and in the state of the parts as regards the heat attained. A specially constructed thermometer in the bladder also serves as a guide.

Dr. Percy has been much encouraged by the results of his treatment. His paper in Surgery, Gynecology and Obstetrics, 1913, deals with the subject exhaustively.

Among foreign visitors to the Congress were Prof. Dr. Kroenig and Prof. Dr. Gauss, of Freiburg, Germany, who were afforded opportunities of demonstrating the technique of radiotherapy and mesothorium treatment of tumors.

Besides the interest afforded by the various clinics a considerable portion of the work at the evening sessions was of special interest to gynecologists and afforded an opportunity of hearing several of America's leading gynecologists in discussion.

IMPRESSIONS AT FOURTH ANNUAL SESSION, CLINICAL CONGRESS OF SURGEONS

By J. M. Cotton, M.D., Toronto.

Chicago hospitals are not quite so well adapted for the numbers attending this Congress as other cities where the meeting has been already held, for the reason that, with one exception, they are not as large. Another reason, the popularity of the surgeons is narrowed down to about three.

The popular clinics were, of course, Drs. J. B. Murphy, A. Oschner and Arthur Dean Bevan.

There was not much that was new brought out in surgery. The other men, not mentioned above, are quietly working and doing just as good work. Intra-tracheal anesthesia is not as popular as in the Eastern cities, and is used in very few clinics. Nitrous oxide and oxygen gas, on the other hand, is much used for general anesthesia.

One cannot but be impressed with the earnestness of the men in Chicago. They are up-to-date in technique and appliance, are indefatigable workers and, on the whole, compare with the best in other large cities where there is always a large amount of clinical material. Coming from a city that has the acknowledged finest hospital in the world, one does not see much in hospital construction that commends itself. I was much interested in Gary Hospital, of the Indiana Steel Company, erected for the care of their 7,500 employees. The buildings are of Italian Renaissance style, fire proof and constructed of dark vitrified brick and brown stone, with red tile roof. The hospital consists of a main building, five stories high, and a three-story power house, connected with the main building by a tunnel.

Accommodations are provided for one hundred and sixty patients. The walls of the corridors are of Italian marble. Eighty-five per cent. of the floors are tile and marble. Ventilation and light have received special attention.

The hospital building is one hundred and sixty-five feet long by fifty-eight wide, and is situated along the Grand Calumet River, on fourteen acres of ground which was set apart by the Company exclusively for hospital purposes.

The building is completely equipped with a modern receiving room for patients, where they are disrobed and bathed before being taken to the wards. It has an autopsy room, with cold storage for the reception of bodies, on the main floor, where friends can come and view the deceased. The room is finished in Italian marble, with marble slabs, and no friend can say that the Company has shown any disrespect to the dead.

The wards have white tiled floors, marble base and border, large windows with transoms, which provide ample light. A large mantel is at one end of each room, and a French window at the other, leading to the sun room. The walls are tinted, and the rooms are lighted with indirect ceiling lights. Each patient's bed has individual electric lights, with an electric light signal call for nurses. The rooms are completely ventilated from both floor and ceiling.

There are a great number of baths on each floor, and one room has a complete hydrotherapy—such as electric light and steam cabinet, marble slabs for massage, a controlled table, shower and Nauheim baths.

The X-Ray room has black marble floor and flat black walls.

The kitchen has everything that is modern and up-to-date, red quarry-tiled floors and white enamelled walls. Cold storage throughout the building.

There are two operating rooms, three surgeons' dressing rooms, exclusive of the receiving room, and each of them is built with as much care as if they were operating rooms. And this building cost at the rate of $1,600 per bed.

The report of the Cancer Campaign Committee of the Clinical Surgeons of America is well worth looking into—the subject being too long for any remarks thereon here.

The Committee for the Standardization of Hospitals has also done good work, and I believe that much good would result if

the End Record System suggested by this committee were adopted by every hospital, as it would be of great assistance in looking up the record of patients and knowing the ultimate result of operations. It would not take the profession so many years to find out that certain operations are or are not worth the doing. Their report also suggests the formation of an Efficiency Committee in each hospital, in these words:

"At present it is nobody's business to see that the hospital patient has good results from his treatment, operative or otherwise. The trustees leave this question entirely to the staff, on the ground that their reputations are above reproach. Each member of the staff naturally does not want to call the attention of others to his own bad results, and quite naturally shirks the odium of publicly criticizing those of his colleagues. The Superintendent, even if capable of recognizing carelessness or incapacity on the part of the members of the staff, especially if they are successful private practitioners, has seldom the power or moral courage to protest.

"Therefore, it is essential that a body composed of members of all these departments should constitute the Efficiency Committee. What has been everybody's business, and yet nobody's business, will become their business. They should be strong enough to do, at least, three things:

1. To call the attention of the staff to their waste products.
2. To gain the concentrated attention of the superintendent.
3. To be listened to by the trustees.

"The trustees must be represented on this committee—possibly by a paid agent.

"Trustees of hospitals who do not investigate the results to their patients do not audit their accounts. Even if their product is *given* away it should be as carefully inspected as if it were to be sold."

The fifth Annual Congress of Surgeons of America meets in London, England, next July, when it is to be hoped that the rubbing shoulders of the industrious and energetic surgeon from America may derive some benefit from his historic, staid, gentlemanly and experienced brother in Old England.

NOTES ON THE CLINICAL CONGRESS AT CHICAGO

BY
R. J. P. McCULLOCH, M.B.; M.R.C.S. ENG., BELLEVILLE, ONT.

IN the eye, ear, nose and throat clinics, as in the other sections of the Congress, the attendance was so large that the capacity of the available operating rooms was greatly overtaxed. However, as one clinician put it, the visitors could at least see whether or not the operator was perspiring freely and draw conclusions therefrom. The committee in charge made every effort to provide for the unexpected registration by putting on additional clinics and demonstrations. In fact, these demonstrations, put on at the last moment to fill up, proved to be one of the attractive features of the Congress, for at them one had an opportunity of meeting, in an informal way, men from all parts of the country, and of hearing their views on a wide range of subjects. The dissections shown by Dr. Cavanaugh illustrating abnormalities of the accessory sinuses and of the mastoid were particularly interesting.

The operation that apparently attracted the greatest attention was that of sclero-corneal trephining as performed by Col. Elliot of Madras. So general was the desire to see this operation and the brilliant surgeon who devised it, that he was given an opportunity to demonstrate it every day of the Congress, and always to a crowded gallery. He now uses it in all varieties of glaucoma, and his method is, briefly, as follows: Under cocaine anesthesia a long incision is made in the conjunctiva concentric with the cornea and as high above it as possible. The flap thus marked out is turned down to the limbus, confining the dissection as much as possible to the central portion. The dissection is continued cautiously a short distance into the cornea. A circular opening is then made into the anterior chamber by trephining out a 2 mm. disc of corneo-scleral tissue. The escape of aqueous carries the iris into the opening, and a small peripheral iridectomy is done, merely to allow drainage from the posterior chamber without danger of incarceration of iris. The

conjunctival flap is then drawn back into place, usually no stitch being required. The result accomplished is therefore a small opening into the anterior chamber covered only by conjunctiva, and allowing subconjunctival drainage of aqueous. Col. Elliot stated that his percentage of failures in all cases was under five per cent.

At the Illinois Eye and Ear Infirmary Dr. Beard performed his single suture operation for tendon advancement. The method seemed simple and effectual, and found great favor with his audience. It is so often difficult to secure local anesthesia which is efficient in all stages of tendon advancement that one was impressed with the very satisfactory anesthesia Dr. Beard obtained, and which he attributes to rigid adherence to his technique. He instills five per cent. cocaine at two-minute intervals for four times, and commences the operation eight minutes after the first instillation, claiming that the longer interval often allowed to elapse between the applications, and between the first application and the commencement of the operation lessens the efficacy of the cocaine.

The Beck clinics were always popular, both on account of the personality of the men and the interesting work shown. In a case of "saddle-bridge" nose Dr. Jos. Beck corrected the deformity by making an incision in the inner aspect of the ala, dissecting up the tissues to the root of the nose, and inserting in the space so formed a piece of rib resected from the patient himself. This was shaped so as to reach from the root to the tip of the nose, thus bridging the deformity, and this without external incision. Some cases previously operated on in this manner were also shown, and the final result was very satisfactory. He now uses paraffin only as a final adjuvant, to level up any little inequality that may remain. Dr. Beck has discontinued the use of bismuth paste as a dressing following septum resections, and now uses strips of gauze wrapped in gutta percha as a packing in these cases, leaving it in for twelve hours. He is still using injections of bismuth paste in diseased antra, in some mastoid and middle ear cases, and in chronic disease of the lachrymal sac. In this clinic urotropine is given after operations as a preventive of septic troubles, the dose ranging from gr. v. t.i.d. to even 100 gr. a day.

He also demonstrated the Killian method of suspension laryngoscopy. The apparatus and technique look formidable, but one was surprised at the apparent ease of the procedure and the excellent direct view and free field for manipulation which it affords. The larynx is cocainized and the patient lies on his back with the head strongly extended. An instrument somewhat like a long curved tongue depressor is then introduced so that its end catches the epiglottis and presses it against the back of the tongue. A mechanical appliance now enables upward and forward pressure to be conveyed through this instrument to the back of the tongue and epiglottis until the larynx comes into line with the upper incisor teeth. The surgeon standing above the patient's head can then by the use of a head mirror see directly into the larynx and trachea and has a very free field for the use of instruments. In addition to using this method in intra-laryngeal operations and in the removal of foreign bodies, he reports considerable success in the treatment of asthma by the passage of large tubes into the trachea and bronchi, under suspension laryngoscopy.

Mention should also be made of the stereoscopic radiographs of Dr. Emil Beck. To those of us not specially versed in radiography, who find we have to draw strongly on our imaginations to see all the radiographer can see in an ordinary X-ray plate of the head, the feeling of assurance with which these stereoscopic plates could be read was very satisfying.

The Ballenger operation of exenteration of the ethmoid en masse is apparently not favored by his confreres in Chicago, nor do Freer's sharp dissections of septum and turbinate seem to find any considerable vogue outside his own clinic.

In the every-day operations of our branch there were to be seen, as might be expected, many variations in technique and in execution, all interesting, many possessing merit, but not lending themselves profitably to abstraction in a brief review. The multiplicity of methods of tonsil enucleation was rather astonishing, and would go to show, if it shows anything, that a universally satisfactory method has not yet been devised.

THE CLINICAL CONGRESS OF SURGEONS

BY

ROBERT MORRISON CURTS, M.D., F.A.C.S., PATERSON, N.J.

WHAT value shall be placed on the meetings of the Clinical Congress of Surgeons? Quoting from the *Journal,* "as its name indicates, the Clinical Congress, as an organization, has for its object the emphasizing of clinical demonstrations for the benefit of its members, rather than following the conventional method of inviting its members to read and discuss papers." Then goes on to say, " This plan restricts its sessions to larger cities where an abundance of clinical material is always available and where there are competent clinical teachers fitted to make demonstrations and willing to open their clinics to the members of the Congress." Thus from its name, its object and its facilities, we infer that it is intended largely to give opportunity to those aiming to do careful, conscientious surgery, to observe practical work in the operating room. Its membership is in no way exclusive, except as to the ability to pay the registration fee. Hence one is impressed by the large numbers of all classes of surgeons, would-be surgeons and men in general practice, who attend these meetings, particularly so when one sees present at clinics some of the most distinguished men who are actively engaged in surgical work in the United States and Canada. Of these latter, probably a goodly number were in Chicago more especially for the purpose of attending the convocation of the American College of Surgeons, which took place during the same week. However this may be, the Congress consisted of all classes and types of graduates in medicine and they hailed from every Province in the Dominion and every State in the Union, numbering nearly three thousand souls, hungering and thirsting after knowledge. There was the noted surgeon of England or France or America, present on special invitation as guest of the Congress or of individual operators. Next we see many good surgeons, who in their home town or city are on the staff of hospitals and who have a large active surgical practice. Most of this type are men capable of much skill in general or special surgery. The members of this class attended the Congress with the hope of getting some post-graduate clinical demon-

strations, that would better fit them to do conscientiously, the work of their hospital service and private work. There could be observed a third class of medical gentlemen moving comfortably about the great corridors of the hotels, occasionally visiting the clinics or the theatres. I am inclined to believe that this type consisted mostly of general practitioners and made up quite a large representation of the great Congress of Surgeons. They were really not surgeons, or I might say they were not real surgeons. Some were known to me personally and with others a temporary acquaintance was gained for the purpose of ascertaining whence they came, the character of their work at home and what they were accomplishing by their visit to Chicago. Few displayed much enthusiasm over the clinics. Many had had no practical post-graduate training, apart possibly from a hospital interneship. We believe that in this six day clinic it is impossible to teach much practical surgery to the average general practitioner. Therefore, we are led to think of the scheme of travelling long distances to Chicago for the purpose of attending the Congress, as an investment. We imagine the added prestige and acknowledgment of increased surgical skill, accorded to the investor by his friends, neighbors and patients on his return to his home town. Such a man uses the Congress as a trade mark, whereby he stimulates the confidence of patients requiring operation and obtains a larger fee for work often wretchedly performed. So much may be said as to the character of the membership. What shall be said as to the real value of the institution? We must acknowledge at the outset that the question is rather difficult for the individual member to answer, without much careful study and inquiry. In the first place it is altogether too cumbersome and one is inclined to think that, sooner or later, it will topple over from its own weight. The immensity of it has surely exceeded the fondest expectations of its founders. From a small and unpretentious beginning it has grown suddenly so large and important that the founders themselves must look on in wonder and probably with some embarrassment. At the recent meeting in Chicago, the committee of arrangements doubtless did everything in their power to provide for the wants of the great numbers who were in attendance.

They were aided by the co-operation of the best surgeons and the finest hospitals in the city. The scientific programme for the evening sessions was of a high order and well merited the appreciation of those who were privileged to attend. During the afternoon bulletins were posted giving in detail the operations that were to take place on the following day, together with the name of the operator and hospital. Little booklets were furnished, giving ample information as to the routes to be taken in going to the different hospitals. Up to this point the Committee's work ran smoothly. Then came confusion, through an effort to limit the attendance at various clinics, by means of issuing a limited number of special tickets of admission. The writer arrived in Chicago at noon on Monday and after registering and paying the required fee, took a look over the bulletins, and having selected the clinic for Tuesday morning, proceeded to get the special ticket. I was told these tickets would be given out at six p.m., and waited until ten or fifteen minutes before the time. I soon found myself entangled in a seething mass of humanity, being pushed or packed together worse than a mass play at a rugby game. In half or three-quarters of an hour I emerged with my clothing torn, considerably exhausted and with a ticket for a clinic, in which I was not especially interested. Subsequently an effort was made to prevent this jam, but owing to the great crowd many were unable to obtain special tickets. Thus the endeavor to provide for the wants of all who registered as members of the Congress was a failure. The conditions existing at the clinics were unsatisfactory.

The amphitheatre was usually crowded to its fullest capacity with but few holding a vantage point for actual observation of the work done.

As frequently happens, the operator was surrounded by assistants and nurses to such an extent as to make it practically impossible to follow in any detail the steps of the operation. At some of the more important clinics the surgeon did much to offset this by talking, giving a history of the patient's illness, discussing diagnostic features and describing the operation. In addition one had some opportunity to observe the technic of the operating room and the surgeon. Much of what I have written

is not intended to be a severe criticism of the worthy object and the work of the clinics, but rather to show the futility of the effort to give practical application of the original thought and hopes of founders of the Congress. Still I believe the visit to Chicago and membership in the Congress was worth while to the average surgeon. To be in the atmosphere of these great clinics, to see the faces and hear the voices of men of international reputation, to learn something of what is new and advanced, sends one home with renewed ambitions and with new ideas. The assembling of nearly three thousand surgeons of all types, who are eager to grasp at the least morsel of surgical knowledge and who will travel thousands of miles to attend eight or ten clinics, leads one to apprehend that there is not enough opportunity given ordinarily in our large cities for occasional post-graduate work. I believe the best interests of surgeons will be obtained by the organization of a society of surgeons for each state or province. In this way clinics may be given in the larger cities, to very much smaller numbers to very much greater advantage.

ADMITTING DEPARTMENTS IN LARGE GENERAL HOSPITALS

By Dr. N. A. Powell.

That the methods followed in many large hospitals as regards the taking in of patients leaves much to be desired is a proposition that few, familiar with the facts, will care to deny. How often does it happen that an ambulance is driven up to an institution's front entrance, that a curious crowd of bystanders gather to watch the lifting in of a stretcher on which lies a very ill or a seriously injured patient, that a wait more or less prolonged occurs while registration and assignment to a service is carried out; that a further delay occurs while behind a screen in a large ward the removal of the clothing, the bathing, the putting on of a night robe and the examination for preliminary diagnosis is made.

An earnest effort to do away with these and many allied evils has been made at the new Toronto General Hospital. For the first time in Canada a large and perfectly equipped emergency department has been organized in close association with the admitting rooms, and the results of such association are being attentively studied.

It is no part of the writer's present purpose to discuss the work so far accomplished in the accident department. It is as yet on trial, and those responsible for it are content to abide the test of time and more prolonged service.

With regard to the admitting department which was organized by others he can speak now in terms of unqualified approval. In planning it the best features of many of the world's greater hospitals were given very careful consideration.

At Mt. Sinai Hospital, in New York, as a result largely of the efforts of Dr. A. G. Gerster, they have had in operation for many years a most excellent department of this nature. Having picked up in various visits to Chicago a number of valuable suggestions regarding ambulance and allied services, the writer was anxious while attending the recent Clinical Congress to learn all that he could about the admitting departments of the larger hospitals there.

He came away with the distinct conviction that a more suc-

cessful effort had been made here than elsewhere within his knowledge to solve the problems of such a department, and so he has no further report to make on the subject.

IMPRESSIONS OF CHICAGO CONGRESS

J. H. McConnell, M.D., Toronto.

There is no question in the world that nearly everyone felt a certain amount of inspiration at seeing, meeting and hearing the big men in the profession of Chicago and other educational centres talk on their favorite subjects.

The hustle and bustle of the members around the headquarters almost seemed like a political convention. The line-up for the tickets of Murphy, Ochsner, Lane and others looked like a theatre line. But all appeared good-natured, even if they did have to go without breakfast to get to some of the hospitals early in the morning—only to find the place filled when they arrived there. If you could not catch all the operator was saying someone near would good-naturedly tell you.

The evening meetings were crowded, but impressive, and there one could form an idea how eager the profession were for information. The papers were well prepared, and delivery splendid. The men taking part impressed me as lucid talkers, even on the finest points. Dr. Cushing's record on "Brain Surgery" was wonderful.

In the hospitals the technique was of a very high order. It was surprising the swiftness and accuracy of diagnosis which the operators showed.

It was refreshing to see so many Canadians from all over Canada there. Only a few days, yet our own men from Toronto grew to know each other better than in years at home. It raised us out of our narrow grooves. By weighing, discussing and comparing what had been seen and heard we gained knowledge of our surgical work that cannot well be forgotten.

Dr. Franklin Martin is a great organizer. The Congress was handled wonderfully for the crowd that was there, and one came home rested after having an instructive and enjoyable week. Surely such a Congress must have a splendid and lasting effect on the whole profession.

THE HARBOR OF INDIFFERENCE *

An Allegory

By Geo. D. Porter, M.B.,
Secretary of the Canadian Association for the Prevention of Tuberculosis.

Inspired with the hope of interesting more of the general public in our great tuberculosis problem, I shall endeavor to picture the conditions as they exist in Canada to-day in a nautical, rather than in a technical, way, trusting that, however crude the attempt, this may prove to be the more acceptable.

Lacking in all those dramatic qualities which make the deaths in war and from accident so thrilling to us all, tuberculosis silently takes its toll and, like some mighty undertow, slowly sweeps its victims into the great beyond, leaving scarcely a ripple upon the face of the waters.

* * * *

Somewhere under the blue skies of the Western horizon there may be seen one of the world's most spacious and magnificent harbors, but just outside of this lies a shoal which is covered with the wreckage and debris of numberless vessels which have foundered upon it. One wonders as he views the magnificent harbor and the beautiful city around it why some supreme effort has never been made to dredge away this dangerous shoal and prevent the appalling loss of life upon it. Although much money has been expended in fortifying the harbor against any possible invasion, and although constant inducements are held out for foreigners to come and settle in their midst, strange as it may appear, the greatest apathy has always prevailed regarding this melancholy spectacle.

Securely anchored in this harbor of indifference lies a fine fleet of large and well-appointed ships. Along the docks lie a number of other vessels, while many smaller craft steam up and down, and the waters are dotted with innumerable small boats and launches. On enquiry, one learns that the fleet of large

* Read before the Third Congress of the Canadian Public Health Association, Regina, Sask.

vessels represents the Federal Government, and it is explained that they have always been prevented from taking any active part in the saving of these lives owing to the British North America Act, which, they claim, consigns that duty to the nine smaller vessels representing the Provinces. These, however, have always been very busily engaged in safeguarding their rights. Mines seemed to them far more important than men; wheat gave them greater anxiety than did the lives of the women; cash concerned them far more than did the lives of their children. They assumed that the smaller craft representing the counties and the municipalities ought to be more interested in the saving of these lives, as they were in closer touch with them, but the latter pleaded poverty. They had to bear the expense of protecting the pockets of their people from possible robbery and pay for the police. They had to protect the homes of their people from any outbreak of fire, and pay money for that. They had to burden themselves with the expense of many local improvements without assuming such an important task as the saving of life. True, they spent large sums of money in educating their children, but they failed to realize that a considerable portion of this was wasted, for many of these children came to an untimely end upon this same old shoal before they reached their maturity.

Floating in the harbor are also to be seen a goodly number of ships bearing white pennants with red crosses emblazoned upon them. These are the hospital ships, but as their berths are all occupied by passengers who are acutely ill, it is claimed that there is no room for those struggling from the stranded vessels. It has been said that whenever such a rescue had been attempted, these dripping victims were found to be so exhausted by their efforts and exposure that they had to remain in their berths for weeks and sometimes for months, thus crowding out the more desirable class of passengers. Special staterooms have been suggested as being suitable for this class, but, with a few exceptions, objections have been raised by the ships' surgeons, who were more interested in those suffering from surgical affections or in those having more interesting maladies. The officers also found that the expense of looking after these passengers remaining aboard for so long a time was considerably more than for those booking for a shorter passage. For

such reasons, the people have now come to look upon the hospital ships as being exempt from any duty in regard to the saving of these lives.

For years this general apathy prevailed throughout the harbor, until finally some of the small private boats put out and attempted a rescue, but, owing to the choppy seas, they could do but little. Some of their owners then united in building and equipping a small lifeboat, which they christened the "Sanatorium." This was of some service, but owing to its size, it proved to be entirely inadequate.

There were those, however, who believed that if it were only possible to dredge away the old shoal, named "Bad Environment," and remove the mass of wreckage and debris, called "Infection," these many disasters might be prevented, and so they brought the matter before the Federal authorities. The latter, however, claimed that the expense would be too great, but agreed that if the people were only properly warned of the danger, and that if the buoys were placed conspicuously around the shoal, much good might be accomplished. With this object in view, an association of public-spirited citizens was formed, and, with financial assistance from the Government, they proceeded to scatter warnings broadcast among the people, and they also placed a number of buoys upon the shoal. These warnings proved helpful for both the officers of the ships and the passengers who travelled on them became more on the lookout for danger, while the buoys were so placed that a clear course was mapped out for the vessels to enter. The curious haze usually lingering over the waters near the shoal, however, obscured the zone of danger, so that, in spite of the buoys, which were very small, numerous shipwrecks still occurred.

The many warnings, however, gradually aroused the people and broke down some of the strange apathy regarding this preventable loss of life. As a result, some of the Provinces, together with the municipalities and private citizens, united in building and equipping more lifeboats until now some thirty of them are to be seen in the harbor. These have been the means of rescuing many lives, but being nearly always full and inadequate in number, their usefulness is still very restricted. In spite of all these efforts, the annual loss of life upon this

shoal amounts to some twelve thousand, while the loss in money amounts to millions of dollars every year.

The most curious thing observable, however, is the attitude of the passengers upon these stranded vessels. Although many are very timid before embarking, a timidity which has been increased, it is claimed, by the many warnings of danger and by the sight of the buoys, yet when the vessel actually strikes the shoal, it is observed that a most unusual apathy prevails among them. This is ascribed to the soft and shifting nature of the shoal which muffles the sound of the vessel as it noiselessly goes aground, thus giving rise in the breasts of the passengers to the most careless optimism. Indeed, the officers frequently have to warn them that the vessel is doomed and to urge them to make for their safety. Finally, realizing their danger, many make for the life preservers which are scattered conveniently about the deck. These are of the regulation shape and size, are canvas covered and bear the curious name of "Consumption Cures." Their worthlessness, however, is soon discovered, for, owing to the scarcity of cork in these regions, they have been filled with rotten sawdust instead. Those trusting to their buoyancy to uphold them, fasten them around them and jump into the sea, but, owing to their weight, these life belts prove worse than useless and the struggling swimmer soon sinks into the deep.

Other passengers make for the lifeboats, which have been curiously christened " Climate Cures." These are usually well designed and are painted in the most attractive colors. The second-class passengers and those travelling steerage seldom enter them, however, for there is always a large fee for doing so, but the majority of them are just as well off where they are, for these lifeboats, being made of flimsy material, shrink on exposure, and when launched often spring a leak, and those passengers are considered fortunate indeed who reach safety in them.

While watching anxiously the futile efforts of their companions in distress, some of the passengers hear a tremendous stirring of the waters, and, gazing into the deep, they behold a great sea turtle moving alongside. Unlike most turtles, it makes a great noise, and the attention of all on deck is soon attracted by it. Even those on the shore take notice, and the officers of

the Federal Fleet turn their glasses upon it. Those on the small ships do likewise, and soon great excitement prevails, for is this not a new way of escape? The people crowd the decks to get a glimpse of it, and even the surgeons and officers of the hospital ships become interested. To be sure, this turtle ought to prove the very thing, they exclaim, "for is it not an amphibious animal, both able to walk and to swim? And is it not shaped like a life preserver and as large as a boat?" Doubtful ones, to be sure, shake their heads and point out its slippery qualities, but all are eager. Those on the sinking ship are eager, too, and, with much difficulty, the turtle is secured long enough for some of the passengers to clamber upon its back. For a while, it certainly gave much promise and raised everyone's hopes. Those upon the shore were favorably impressed, and as they beheld the strange animal heading towards them and saw the passengers upon its back waving enthusiastically, they became exultant, too. Their ardor was soon dampened, however, when they observed that one or two of the passengers slipped off the turtle's back into the sea, and it cooled still more when they perceived that the turtle which had been heading so straight towards the shore unexpectedly turned towards the sinking ship. Here some of the passengers, becoming alarmed, jumped from off its back and climbed aboard again, but the majority still held on. Then the turtle headed again towards the shore, but after steering an erratic course, finally circled round again towards the sinking ship. A committee of experts was appointed to pronounce upon its merits as a life saver, but, after observing these disappointing manoeuvres, they pronounced their lack of confidence in this means of escape. This famous turtle has now left these waters, but is hovering around the sandbars of another neighboring port, where it has been subsidized, and any passengers in like danger may have the privilege of one trial upon its back for a fee of two hundred and fifty dollars, and if it fails to carry them to shore they may have another chance for a second fee of one hundred and twenty-five dollars, besides a few incidental fees to those assisting them upon its back.

While all this has been going on, however, some of the wiser passengers, not despising the more common means of safety

around them, have, with the assistance of some of the crew, made a raft out of the loose planks and timbers lying at hand. One plank was named "Good Food," another "Proper Exercise," a third "Sufficient Rest." These were firmly lashed together with some large timbers, called "Fresh Air," while running crosswise were laid beams of "Sunshine" and some scantlings called "Cleanliness." The ropes used were woven from stout strands of "Perseverance," and, with the help of the sailors, they launched the raft and embarked upon it. While, owing to the lack of sails, its passage was very slow and those upon it frequently complained of the tedium and the exposure, yet the majority of those who embarked upon it ultimately reached the shore in safety.

Some of the remaining passengers, seeing their comrades' successful landing, then attempted to do likewise, but their delay proved disastrous, for the sea gradually became rougher, and, weakened from want and exertion, most of those who now embarked were unable to cling to the raft and so perished on the way.

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Assuming that this picture roughly represents our tuberculosis problem, are we not justified in urging all those in danger, until some safer way appears, to make for an early place upon one of these simple, but seaworthy, rafts; and are we not also justified in urging the Governments and the people not only to supply an adequate number of proper lifeboats, but to unite in dredging away this old shoal and in removing the wreckage and debris upon which so many precious cargoes founder?

THE PUBLIC HEALTH ACT OF ONTARIO*

DR. JOHN W. S. M'CULLOUGH, OF TORONTO.
Chief Officer of Health for the Province of Ontario.

THE most important features of the Ontario Act, revised last year, are:

1. The provision whereby the Province is divided into districts, each with a trained medical officer. There are seven of these. Each officer gives all his time to sanitary work within his district.

2. The reduction in the numbers of members of the Local Boards, there being five members in places of 4,000 population and upwards, and three members for places of smaller population, including the townships. The Medical Officer of Health is a member of the Board and its executive officer.

3. The tenure of office of the Medical Officer of Health is made permanent. This official cannot be dismissed except for cause and with the consent of the Provincial Board. He must be paid a reasonable salary. Provision is made whereby the municipality pays his expenses for attendance at the annual Conference of Health Officers. This year about 300 were in attendance.

4. The medical and surgical attendance upon indigents cannot in future be saddled upon the practitioners of the community. The Council is required to provide for this.

5. The period given to report communicable disease has been shortened to 12 hours instead of 24. Measles and tuberculosis are made placardable diseases.

6. Isolation hospitals are placed directly under the control of Local Boards of Health, and arbitration is provided in case of dispute as to their location outside the municipality.

7. The onus of placarding premises for communicable disease is placed directly upon the Medical Officer of Health.

8. Under the regulations the Medical Officer of Health has power to commit a tuberculosis patient in a hospital or sanatorium under certain circumstances.

* Read at the meeting of the Canadian Medical Association, London, Ont., June 25th, 1913.

9. Power is given to a municipality to regulate and inspect its meat supplies.

10. Perhaps as important a part of the Act as any is that relating to the establishment of water works and sewerage systems. Neither of these may be begun without the approval of the Provincial Board, and under certain circumstances the Board has power to order a municipality to establish a water supply or sewage disposal system.

11. For the first time in the history of the Province, a sanitary engineer has been appointed under the Provincial Board.

The reports of communicable diseases and births and deaths made by the medical profession are very incomplete. The importance of this question cannot be denied. Some medical men claim they should be paid a fee for such reports. The Ontario Health Officers' Association recently passed a resolution asking the Government to pass legislation requiring a fee of 50 cents for each report of a communicable disease, a birth or a death. This question should, in my opinion, be freely discussed here. All I have to say about it is this: that the members of the profession will in the future be required to obey the law. So, if they believe themselves entitled to a fee for such reports, they will get it only by making their influence felt in the same manner as other organizations do. If they follow their usual business tactics and wait for Providence to help them, they will get no more recognition than at present. These remarks are made with a view to provoking discussion.

Hospital Administration

SEVENTH ANNUAL CONFERENCE OF THE CANADIAN HOSPITAL ASSOCIATION

Morning Session, Toronto, October 21st, 1913.

Dr. Helen MacMurchy: These papers are now open for discussion. There are three or four names on the programme. But I think our discussion will be brief. I was going to propose one minute or two minutes, perhaps, for each speaker. That, however, does not apply to Dr. Young, who will speak to you first—Dr. E. H. Young, Assistant Superintendent of the Rockwood Hospital in Kingston. That is a mental hospital. While Dr. Young is proceeding to the front I might utilize a few moments in saying that I am very glad to see a number of ladies and gentlemen here who I know are interested in this subject, and I am going to call upon them.

Dr. Young: I do not know that Dr. MacMurchy is right in saying that this is such an easy subject to discuss. It seems to me it has been made rather difficult by the splendid way in which every phase of the subject has been covered by the several speakers who have taken up the different departments of the work. I think that social service as an organized thing started only about eight years ago in the Massachusetts General Hospital, and I do not know of any new scheme of hospital organization which has spread so rapidly, and that in itself shows the benefit to be derived from the system must be very apparent indeed. I think it is simply a reflection of the view that the hospital no longer is charged with the care of the sick only, but rather with the care of the health of the community which they serve. I know that in my own hospital, which is devoted exclusively to nervous and mental diseases, we have a social service worker. So far as I know, it is the only one in Canada. Now I do not know that we deserve a great deal of credit for initiating this, because it was forced upon us. Our

hospital was becoming overcrowded. Our patients came, we knew very little about where they came from or the conditions under which they had been living; they were simply brought and we treated them the best we could, and those who recovered were sent home again, and we do not know where we sent them. Well, the result was that our hospital was becoming very much overcrowded. Our hospital was becoming crowded for the same reason that cemeteries are becoming crowded, so we had to do something. So we hit on this plan. The social worker does not do all the social work. The physicians on the staff keep track of the work all the time. We took the best nurse we had, our head nurse, for this work, and we worked under particular disadvantages because the district is largely rural, so it is much more difficult for a nurse to get around to see patients. However, I had intended bringing the notes of the nurse down here, and I am sure if I read a few extracts from them it would convince you of the benefits of the service. To begin with, a great many cases who would in the ordinary course of events come to our hospital do not come at all. The staff has been left there for quite awhile now. The superintendent of my hospital was born and brought up in that district, and so the superintendent and myself know almost every physician and prominent layman in the district, and we are very familiar with the resources of that community. So when a patient has some mild hallucination or visions or some of these little mental troubles you all read about so frequently, we are able to send a social worker to him and with a little advice the patient is treated at home, the case does not have to be certified as insane and put into an asylum. And then there is the patient that does not come to the institution. Sometimes we have a woman that has a pathological depression known as melancholia. Now it is impossible to cure that woman while she is worrying about her children at home. Now, if we can send a social worker to her home and arrange that her children are taken care of and the nurse can come and tell us, it is of great assistance to us in effecting a cure. Now we are able to discharge our patients quicker than we could before. It almost used to be a rule after the patients had fully recovered that it was necessary to keep them there two or three months longer

in order to harden them and prevent a relapse. Now we discharge them much earlier. When they are discharged a social nurse visits them, first once a week, and then once a month, and then, if there are any symptoms of returning trouble, the patient is brought back to the hospital, and they do not mind coming at all, and I think there is no doubt that we prevent suicides and so on. Then we have the patient who must not go home. Sometimes we get a patient who is the most normal member of that family, and very often if we send the patient back, she will get worse, and very often we are able to find a more suitable home for that patient, as a housemaid or something of that kind. We have no trouble at all getting people to take them when we tell them that a social service nurse will visit them, and they do not worry about the patient if she should begin to whistle or sing. It helps us in that way. Now the result of all this has been that we were able to reduce the population of our hospital about twelve per cent., and I am sure in that way it is quite a saving to that community, of at least ten or twelve thousand dollars a year. (Applause.)

Dr. Helen MacMurchy: Ladies and gentlemen, you see what splendid work they are doing in Rockwood Hospital.

Miss Sharpe: In my experience in my own hospital we are still looking for the person between the nurse and the social worker, and although we can do a good deal of the medical part of the work we have not as yet been able to organize a social service and we have no social service workers outside the hospital to call upon. But I think it should be an organization of some kind independent of the hospital, because the hospital has the medical part of it; the social work should be some other organization. If you try to do it individually you will very frequently be financially embarrassed.

Miss Dyke: I think the hospital social service from the point of view of an outsider sometimes is created for nothing in the world but to keep the city agency busy. For that reason I have wondered whether a nurse with exclusive training in the hospital can really be of value to that hospital as a social service worker. I think the hospital social service here is doing as much as any agency to educate the people in a wide way. A friend of mine said, what is this social service problem of the

Toronto General and I tried to tell her. Her brother is a lawyer in the city and a school friend of his came in one day in a desperate condition and he asked for money and the lawyer gave him money, and the man came in and fell down and cut his head on a corner of the desk. Well, the lawyer called his motor car and took the patient to the General Hospital. Instead of attending to it, the case was referred to the social service. In the course of a few days the lawyer called upon his friend, but Miss Grant said he must not see her patient; she said she wanted that man to overcome that weakness and leave the hospital feeling that there was no one on whom he could depend. This was a new experience. The hospital taking a man and putting him on his feet was a new idea. The funds were given to the man as a loan, and the last I heard he expected to be paid, but at any rate that cut was the means of doing a good work.

Dr. Helen MacMurchy: They did attend to the cut though, didn't they? (Laughter.)

The President: I am sure I am delighted with the excellent papers we have had this morning, but I think that some of us feel we have not been doing any social work in the hospitals that we represent. I remember a case not long ago; I telephoned to a place and they said they could not take him in. This man was not really a fit person to go to any institution; he hadn't any money; so we decided to send that man in company with a family nurse or somebody to his home. Now, we sent the man and paid his way home. This is another class of social service work that is being done day after day in each of our hospitals in the larger hospitals and in some of our smaller.

Dr. Brown: Dr. MacMurchy, I think the outsider referred to is Mr. Bradley, of Boston, who has been handling that phase of the work. I had not expected to be called upon, only to express my great pleasure in seeing such a splendid turn out of the Canadian Hospital Association, in which I had really more part in organizing than in organizing the social service part of the Toronto General Hospital. That was a very minor part of my work indeed; I think the honor of that is due more to our presiding officer to-day than to anyone else.

Dr. Helen MacMurchy: I would not like to be so mean as to steal your thunder for this afternoon or I would call on Mr. Bradley. The two people I counted on next have left the room. They have both just slipped out. However, there is Dr. Hastings.

Dr. Hastings: I appreciate very much the privilege of being here, but I came to listen and not to talk, and with your permission and inasmuch as our department has been so well represented here this morning I will withdraw and leave it to others.

Dr. Helen MacMurchy: Ladies and gentlemen, some of you perhaps might have a point which occurred in some one of the other papers, because it is very difficult to limit oneself.

Dr. Haywood: I am sure we all appreciate Mr. Burnett's enthusiastic criticism (because I feel down in my heart it was a criticism), but I hope he was not criticizing the hospital and its social service department, because, so far as I can gather in looking around the city, the amount of social service work being done in the city is almost infinitesimal. Before Dr. Hastings arrived at the City Hall I do not think anything was blacker than the conditions were down there. Since his arrival things have brightened up. If Mr. Burnett would apply some of his enthusiasm in his own department down there and stir them up, I am sure he would be well paid for it. We are crying for emigrants in this city. We are always going to need this place, and the people to get at are down in the City Hall and in the Parliament Buildings, the people who regulate our laws, and I think if we had the people here this morning who could do this they would do it. What we want in this city is a society for charities well organized and well run. I know that at the hospital here we are giving help and we know that others are giving. If we had a record by which we would know what other person has given aid in a certain case it would be a great help.

Miss Aikens: One question, and that is the relative value of the nurse as a social service worker and of the trained social service worker. I have a very strong feeling that the best worker is a nurse that has a social training. I may be entirely wrong.

Dr. Hastings: I think in view of what Dr. Haywood has said, there is room for some little defence. I am exceedingly sorry that Dr. Haywood should have misunderstood Mr. Burnett. What Mr. Burnett wanted to say was that there was work for all to do and that the Toronto General Hospital could not begin to do all the work, but their work is simply one link of the chain. Now the Department of Health is entitled to secure the co-operation of every person interested in social work and they have endeavored to make other people work. There is always a little sensitiveness about the Department of Health taking up social service work. We are only too glad to do all the work you can force onto us, and it has been the endeavor of the Department of Health to stir up such a spirit and such a public sentiment as to demand the very highest degree of public health service, and we only hope that the demand will spread, so that the citizens of Toronto will insist upon the very highest quality of public health service, because if they insist they will get it.

Dr. Helen MacMurchy: You will notice, ladies and gentlemen, that the same idea is in the minds of everybody almost that speaks, that the hospital alone cannot do it. This is a thing that we must all do better or it will not be done at all.

Mr. Burnett: I do not think there is any need for me to say anything. I only want to say that I tried to say too much. We are having such splendid work done here at the General Hospital. I merely want to say how pleased we are with each other this morning. I will reiterate what I was saying that instead of thinking we have done sufficient when we look after the man after he leaves the hospital that the highest progress is to look after the prevention of some of our patients coming there at all.

Dr. Helen MacMurchy: There are just one or two points I would like to refer to. The case that Dr. Ross referred to about the poor case of indigestion; that case was a very remarkable one of feeble-mindedness. Then about the social worker, whether nurse or doctor; the first requirement of the social worker is that he or she should be a human being. After that you want to get all the training you can get; a nurse's, or

better than a nurse's, a doctor's, or better than a medical man a University man's. It is all very right in being a good humanitarian.

Ladies and gentlemen, I won't detain you another moment except to extend to you our thanks, our sincere thanks to the speakers, Mr. Burnett and the others, who have given us to-day so much pleasure and so much interest and so much instruction in this work. (Applause.)

THE PRESIDENT: I am sure we are delighted. I do not think there is another organization in the country that has had anything on social service that can be compared with what we have had this morning, and I want to tell you that it has been very largely due to the efforts of Dr. MacMurchy, (Applause.) I have only one thing to say. Perhaps I had better read this announcement again. (Reads announcement.) I would like all those who have not already registered to register, and the Treasurer is here as well to accept the fee of $2 to this Association. I just want to say that we have been under a rather heavy expense and we would be glad if every member, and everyone who is not a member, would become a member of this Association. and register.

Toronto, October 21st, 1913.

Afternoon Session.

H. A. Boyce, M.D., in the chair.

THE CHAIRMAN: I have here a communication from the British Hospital Association.

(Reads communication.)

I think it is a fine thing to have a tie between all of our associations; no boundary should be so high as to exclude each from the other. I think it would be nice for the members of the Executive Committee to become corresponding members of the British Hospital Association, so as to have their literature along with our own.

(Mr. Richard M. Bradley then read paper entitled, "Community Needs in the Care of the Sick.")

Miss Aiken: We have worked so much over this very problem that I hardly know where and how to touch it, except that I do believe that the next great step we need to take is the organization of this unorganized field among people of moderate means. I am convinced from what I have seen of this plan I know that it does meet the needs. I am convinced that we cannot do better than try to inaugurate some such plan. I hope that in time we may have a county or city "centre," that will be a real nursing centre to provide the kind of nurses needed—graduate nurses, and the lesser skilled when they are required. I think everybody is convinced that this co-ordination of our working forces—instead of the competition which is now in vogue—should be effected as soon as possible.

Miss Grant: I want to give my opinion about the nurse in the home. I think that the graduate nurse has worked for a long time to get a footing, and to get on a better plane in her profession. and I still think that she should hold her profession as a great profession. If more help is needed in the homes there are the visiting nurses and the social helpers. If they need housekeepers on that line, they should supply them; but the nursing profession is very much like the medical profession, and the standard should not be lowered in any way. We have been working a long time to raise the standards, and they should be upheld.

Miss Mackenzie: That surely does not mean the lowering of the standard of the graduate nurse, does it?

The Chairman: Not at all.

Miss MacAdams: Did I understand Mr. Bradley to say that he thought the attitude of the professional nurse was rather harsh towards the non-professional, that they do not come in contact with one another enough? In my experience I have found that it is really very difficult to come in contact with these non-professional nurses. As a rule, they rather shrink from the professional nurse, while I think the professional nurse would be very glad to offer every assistance, but they seem to keep away from her. There are many instances where these nurses, after a few months' training, have gone into the home and taken cases that they should never have undertaken, and it seems to have a tendency to rather lower the professional

nurse, and it makes it difficult for her to take the stand that she should, on account of these other nurses. I do not think it is lowering the dignity to go into the kitchen in any home where it is necessary, and we are all willing to do that. It is the same as the professional man where there is no one to assist him, he often has to do things which he should not have to do. I would not like to have the profession lowered, and I do not think it is lowering to do many of these things which trained nurses should not rightly be expected to do.

Miss Aiken: If I may be permitted to say a word again it is this: The greatest difficulty is, as the lady behind has said, that these nurses take more responsibility than they should, and this state of affairs is going to be experienced until we get an organization under which these nurses will work. I don't think this is going to be accomplished in a day, or a month, or a year —and there will always be some people who won't come under this provision—but there will be some who will come under this arrangement, and gradually the graduate nurses will give them more control than they have ever had before; at least my experience has been that it has worked that way.

Miss Mackenzie: I hope the time will come when there will be an organization of that kind in Toronto. I have been nursing for several years, and it is very distressing sometimes to have to leave people without someone in charge. I sincerely hope the time will come when we will have something of that kind.

Mr. Bradley: I think this is an attempt to raise the standard of the graduate nurse, and as far as I am concerned, I view it as an attempt to promote her from a private to an officer; and although I do not think you can possibly lower the dignity of a nurse by anything which she may be required to do, I do think you can waste her time.

I remember an instance in a small town on the Hudson. An enthusiast over graduate service told me, "We will saturate this town with nurses." I said to go ahead. We got nurses who were not afraid to do anything. I had a chance to talk with the old Dutch doctor afterwards, and he said that the people didn't seem to know exactly what to do with these young ladies in their houses; it did not seem quite right. The nurses

said, "We have worked for four years or three years,"—or whatever it was,—" and we are perfectly willing to do all these things, but it seems as if we might be useful for something else besides cleaning out sinks and so on. We don't object to doing it, but it must be a waste of time." That is one of the things that set us thinking on this business. During the last thirty years there has probably been a condition between the nurses and the other labor, which has prevented the spirit of co-operation, and as the old practical nurse has died out and the graduate nurse is established in the community as an absolute essential, we will have an adjustment in time in which the nurse will assume her natural place. People are going to get someone to look after them when they are sick. With two millions of births and half a million deaths, as well as diseases in between, we have to have help. The only question is under what conditions it is going to be given. It is, of course, impossible that the graduate nurse should do it all, and the attitude of ignoring the other women is very much the same attitude that is taken by some people towards pest houses, they think by burning down the pest house they are destroying the disease. There is an attitude of mind which seems to think that if these women are not recognized they will cease to exist.

(Miss Elizabeth Ross Green, Superintendent of the Home for Incurables, Toronto, then read a paper entitled, "Care of the Incurables.")

Dr. Powell: I don't quite know why I am called upon to speak upon this subject, as my own work lies exactly at the opposite pole. I deal with the acute troubles, and they with the results sometimes of our imperfect work.

I have been able to see for a number of years the progress that has been made, and no institution in Toronto has been doing more serviceable work than the Home for Incurables, under the direction of Mr. Ambrose Kent and the lady to whom we have just listened. The service that has been done fully justifies its existence; as I think George Eliot said:

"What do we live for, if not to make life less difficult for others."

The Chairman: I would be pleased to hear a little more discussion on this very important branch of our work.

I will ask a question: Is it proper for incurable patients to be placed in the wards with acute cases? And I may say, in answer to my own question, that I don't think it is. I think all general hospitals should make provision for the chronic cases, but in separate wards.

Mr. Parke: Mr. Chairman, you have, I think, in your question and answer, followed the unfortunate lead of many of the papers; you have left nothing else to be said. The papers have been so excellent that there has been nothing to say, and the audience sat still just the same. I used to live in Quebec, and when the vessels came up the river to Quebec they used to leave lines trailing overboard so that the bumboats that came out to meet them could catch on; but the papers have not done anything of this kind for us.

There is one point that seems to have been followed all along, and that is the tremendous responsibility that is being and has been assumed by the heads of training schools.

While I was in the woods recently, I read a series of stories, one of which was called "The Old Gray Chieftain." This was the name given to an old mountain ram that had been hunted for years. Two hunters, while in hiding, believe that he is just around the corner of a certain rock; they hear a noise, and one says to the other, "What is that?" "That is the Chieftain." "What is he doing?" "Knocking his horns against the rock." "What for?" "Because they grow so long that they become an inconvenience to him, and he cannot reach his food."

Some of our teaching standards are like this, and they cannot reach what is almost within easy reach. I am always very diffident about raising any question of these nursing standards, but I say it is up to them to see if the time has not come for them to butt their horns against the rock, and I think the lady who has just sat down gives some Canadian hospital a great opportunity in this work. Why is not this taken hold of? These girls should make very good material for the rest of their lives or until they get married.

Miss Green (Toronto): Is there any reason why these young women should not be taken into a training school in Canada?

Dr. Robertson: When we started our sanitarium some years ago this matter was brought up, and we attempted to have some of our nurses trained in some of the other hospitals throughout the city. Application was made, and in each case it was turned down. No particular reason was given, but as far as I can learn the objection chiefly came from the lady superintendent of the hospitals, who objected to taking in ladies trained at another hospital, this leading to a great deal of confusion. One question which was taken a great deal of notice of by them was that of seniority. This was practically the only reason given, and consequently we had to send these nurses to New York.

Miss Green: The question to my mind is, what are we going to do with incurable patients? I have a small hospital, and it is a trying question with us to know what to do with these people. We have not the time or space, and nobody else has. The Women's Christian Association of the town look after the poor; they are well organized, and look after all people who don't come to the hospital. Certain ladies take certain wards, and they come across a great many people who cannot be taken care of at home, and to a certain extent they make the hospital a dumping ground. I do not mean this in any nasty sense, but you see we have so many, and no way of keeping these people month in and month out, and our governing regulations say that we cannot keep them more than three months. What can we do with them? I should be glad to have some information on this subject.

Miss Green (Toronto): There is no use in taking the patients unless we have the nurses to take care of them; the first essential is to have someone to take care of them.

Miss Green: I don't mean to hurt Miss Green's feelings, but we have to have someone to care for them. If every small town had an incurable hospital it would be different, but we cannot afford to have one.

The Chairman: I think during the last year I have had four or five people come to me and say, "My father-in-law" or perhaps "my father is not very well. He is about seventy or seventy-five years old," or something like that. "I wonder

if I could not get him into the hospital." I said, "Is he going round?" They would say yes, and I would ask why they wanted him in the hospital. "Oh, just kind of to get him off our hands." There are many cases of that kind, and you have to be firm in these cases. They can be looked after at home, and I think we have to meet these people at once, and find out definitely about them, and not have the cases dumped into the hospital unless the patients are sick. The hospitals should not be made dumping grounds for cases which would be just as well at home.

Miss Miller: It is a very easy thing in a town of seven or eight thousand to get twenty incurable cases in the hospital. These patients are, perhaps, not going round, and need care. What are you going to do with them?

Dr. Powell: I think, perhaps, I was to blame in side-stepping the question of incurables.

In a big city hospital it is easy to get rid of patients, but there are those who develop in the hospitals—develop into "incurability of the hospital." Our city hospitals can get rid of them by sending them to certain institutions, but there is a difficulty in the smaller hospitals, because there they admit patients out of friendliness to the people, to get money, or influence, and then they are settled with them for a long period. The other way is to help, to give some help to the people who will take charge of these incurables. We had a man who became incurable, and we wrote to his daughter and told her the circumstances. We offered to supply her with an air bed, and when that was worn out to supply another; we also offered a certain amount of money, and in that way we sent the patient back and got him taken off our hands; and they get excellent care.

Dr. Robertson: This matter was brought to the attention of the Ontario Government; we brought it up year after year, and one result was that the Ontario Government passed an Act to provide Houses of Industry. I think it is up to the Government of each province to provide a home for incurables in each municipality, in the same way as they did the houses of industry, and the sooner this Association gets after them the sooner we will get some results.

Society Proceedings

ACADEMY OF MEDICINE, TORONTO

At a recent meeting of the Academy of Medicine, Toronto, Dr. R. A. Reeve referred to the recent Congress as the largest gathering of medical and scientific men that has yet occurred, and this not only as to numbers present, but as to the mental calibre of the members. It was his privilege to attend the Congress of 1881, and in some respects that meeting will never be excelled. The lapse of time since the 1881 congress, the passing of a generation, had borne fruit in an all-round elevation in medical standards. There was shown a marked advance in general technique and the improved clinical application of this knowledge was markedly exemplified. There was a noted change since the last Congress in the attitude of our British confrères toward the Canadian contingent and overseas representatives generally.

Dr. Reeve was one of six Canadian delegates to the Congress of 1881, and the attitude then by the British members toward those delegates was one of indifference. This was exemplified at the time by the fact that if a gentleman called himself an American he was better received than Canadian delegates like Dr. Palmer, of McGill, and the veteran Dr. Geikie, of Toronto. That was the day of the Little Englander. All that had changed, and the reception and hearing accorded Colonial delegates were in full harmony with that of those of the United States and other foreign countries.

Another feature of the Congress was the addresses at the opening meeting, and the gracious recognition by Royalty of the work and worth of medical men generally. At the Congress of 1881 the Prince of Wales, afterwards King Edward, and Prince Frederick, who afterwards became the Emperor of Germany, occupied seats on the platform. At that meeting the

Prince of Wales read the address of welcome for his mother, and similarly at the last Congress Prince Arthur of Connaught delivered the address for the King and with the King's welcome was the hearty joining in of the Government of the day, Sir Edward Grey and John Burns, members of the Cabinet, delivering addresses.

John Burns gave high tribute to the work of medical men. He told of how he had not looked through a microscope until at some institute he peeped and saw and was assured of the real nature of the things seen. This led up to the interest he took in the medical and collateral sciences.

At the closing general meeting of the Congress he delivered a long address in which he dealt with his subject in a manner worthy of the occasion and worthy of the man. This was the man imprisoned twenty-two years ago as leader of a dock strike.

The Congress was fortunate in the selection of its President, Sir Thomas Barlow, a man well known as an original worker and later as a great clinical teacher and leading consultant. Sir Thomas more than equalled all expectations. He showed what he was as a man. His manner was hearty and sincere, and very acceptable to foreigners. He displayed a rugged eloquence well worth hearing.

Cushing, in a fine address, said a surgeon ought to be a physician, and referred to the necessity of preserving the unity of medicine. He reminded Dr. Reeve in parts of his address of Cheyne of Edinburgh, who said his laboratory was his most invaluable aid.

The great address of the occasion, by the outstanding figure of the Congress, Professor Ehrlich, was an expressed example of the finest research and laboratory work correlated with and checked by clinical observation. The Congress of 1881 had two outstanding figures, Pasteur and Lister, but this one could only boast of one great outstanding figure.

One of the most interesting features of the Congress was an exhibit shown. This was the inoculation of vegetables with cancer, and showing the growth of cancer in these vegetables—work done by Dr. May, of the American Government Institution at Washington.

It is interesting to note that points brought out at the 1881 address by Virchow, by Sir James Paget and by Huxley were still unsettled and were subjects for discussion and difference at the 1913 Congress.

Requested by the President of the Academy, Dr. Reeve compared the Congresses he had attended. He said it was his privilege to attend the International Medical Congress of 1876. The President of the surgical section at that time was Lord Lister. The discussion on micro-organisms introduced by Dr. Hodgens, of St. Louis, was Lord Lister's apology for an address lasting some three hours. At the conclusion, a resolution was adopted in which it was stated that, while admitting the facts and presentations of Lister, they could not give unqualified endorsement of his views.

At the Congress of 1881, five years later, there was a remarkable change towards Lister and his system.

At the Congress of 1890, held in Berlin, Lister gave a short address on First Aid. Standing with Dr. Weir Mitchell, of Philadelphia, behind Lister, Dr. Reeve saw, as Lister rose to speak, seven or eight thousand medical men, the majority of them Germans, also rise, each waving his handkerchief. The sight was magnificent. Lister might then well have said, "Lord, now lettest thou thy servant depart in peace." At this meeting Pasteur also received a great reception. While no two men attending the 1913 Congress could match Pasteur and Lister, it can be said of the latter meeting that very many more members were present who had done much good and solid work than there were at the former meeting.

We regret that, owing to lack of space, it is out of our power to report, as we would like, the proceedings of the Academy of Medicine for January. We hope to do better a month hence.

The stated meeting for January took place on the 6th ult., when Col. G. Carleton Jones, Director General Medical Services, Department of Militia and Defence, Ottawa (by invitation), delivered a splendid address on "The Relation of the Medical Profession to the Defence of the Country." The general discussion was opened by Lt.-Col. G. C. Foster, Asst. Director Medical Service 2nd Division, Toronto, and participated in

by Drs. J. T. Fotheringham, D. W. McPherson, G. S. Ryerson, C. R. Dickson, A. A. Macdonald, and others. The chair was occupied by President H. J. Hamilton, with W. A. Young as acting Honorary Secretary. The attendance was good and a profitable evening enjoyed, refreshments being served at the close.

On January 13th, the section on Medicine and State Medicine held a joint session, the subject being "Venereal Disease in Relation to Public Health." Papers were read by Drs. Gordon Bates, G. S. Strathy, Duncan Graham, R. W. Mann and F. Arnold Clarkson.

On January 20th, the section of Surgery met as usual, the following papers being read: "Tuberculosis of Bladder and Kidney," by Warner Jones; "Hemorrhoids," by A. Moorhead; "Osteomyelitis," by B. Z. Milner. The section was also addressed by Sir James Grant, of Ottawa, who was in the city for a few days. The sections of Ophthalmology and Pediatrics did not meet last month.

TORONTO ORTHOPEDIC HOSPITAL CLINICS

The following clinics were held in Toronto Orthopedic Hospital during January:

Saturday, Jan. 10th, 1914—Ureteral Catheterization and Pyelography in the Diagnosis of Surgical Diseases of the Kidney. (Clinical demonstration.) Dr. C. H. Gilmour and Dr. W. A. Cerswell.

Jan 17th—Appendicitis and other Abdominal Emergencies, Dr. Walter Scott.

Jan. 24th—Ectopic Gestation, Dr. H. E. Clutterbuck. Cases illustrating the various forms, Dr. R. W. Wesley. Treatment, Dr. S. M. Hay.

Jan. 31st—The Chemistry of the Human Body. Special reference to internal secretions. Dr. John Ferguson.

TORONTO GENERAL HOSPITAL CLINICS

Toronto General Hospital commenced a series of bi-monthly clinics on January 7th last. There is no doubt that the opening of the new hospital means an extensive clinical field for study, and we compliment Dr. C. K. Clarke on having acceded to the suggestion of the city profession in this connection. The clinics will be held every second Wednesday afternoon at 4.30 in the large Medical Theatre. The clinics will be Medical, Surgical, Pathological, Eye, Ear, Nose and Throat, and they should be, and doubtless will be, largely attended. Any physician desiring to know the subject of any clinic can find out by telephoning "Adelaide 2800," or referring to the Bulletin Board in the Main Corridor.

POST-GRADUATE MEDICAL SCHOOL, CHICAGO

The post-graduate medical school of Chicago has completed extensive alterations and improvements in the school and hospital building. These improvements include new operating department and many new and up-to-date features which place the hospital in the front rank of modern institutions. The old friends of the institution are invited to inspect the improvements and bring their friends.

REPORT RE MEETING OF MEDICAL OFFICERS OF HEALTH OF ESSEX COUNTY

BY THE PRESIDENT, DR. J. W. BRIEN, ESSEX, ONT.

On November 4th the Medical Officers of Health of the County of Essex met in Windsor in response to a request of Dr. D. B. Bentley, District Officer of Health, for the purpose of organizing and laying plans for future work.

There were present twelve Medical Officers of Health out of the twenty who hold that office in the County. They organized by appointing the following officers:

President—Dr. J. W. Brien, Essex.
Vice-President—Dr. P. Poisson, Tecumseh.
Secretary-Treasurer—Dr. J. W. Beasley, Sandwich.

Committees were appointed to draft by-laws, provide programmes, papers, etc., for meetings.

Meetings will be held in future the third Friday in January, April, July and October, making them quarterly.

At this meeting four papers were read: one by Dr. H. R. Casgrain, of Windsor, on the Public Health Act and its amendments and proposed additions; one from Dr. Beasley on the duties of the Medical Officer of Health in towns; one from Dr. P. Poisson on the duties of the Medical Officer of Health in rural municipalities; one from Dr. J. W. Brien on sanitary conditions in the County of Essex. All papers were well received and thoroughly discussed, and the greatest enthusiasm prevailed.

Too much cannot be said about the great work Dr. Bentley is doing in this District. He is most enthusiastic, thorough and painstaking. His pleasing manner fits him so well for handling difficult problems and obstinate people without creating friction.

It is understood that this is the first County to organize such an association and, it is hoped, will be the means of bringing about a better understanding and better feeling among the physicians and Medical Officers of Health, and of very materially improving the sanitary conditions in the County in the near future.

The meeting expressed the belief that the Association working in harmony with one another, by working in harmony with the District Officer of Health and, through him, with the Provincial Board of Health, could accomplish greater good for the prevention of disease than by working individually.

The Association is known as "The Association of the Medical Officers of Health for the County of Essex."

NEW PHYSICIANS IN ONTARIO

The following candidates passed the final examinations of the College of Physicians and Surgeons of Ontario, November, 1913:

William MacDonald Adams, 267 West Queen Street, Toronto; Harold Bell, Collingwood, Ont.; Wilfred Andrew Thomas Bodkins, 50 Craig Street, London, Ont.; William Alfred Costain, 21 Egerton Street, Brantford, Ont.; Lawrence Edmond Crowley, 110 Ordnance Street, Kingston, Ont.; Arthur Des Rosiers, Rockland, Ont.; Charles Francis Dunfield, Petrolea, Ont.; William David Ferguson, 35 S. Hess Street, Hamilton, Ont.; Anthony James Flood, Delta, Ont.; Grattan, Clifford Graham, Fenelon Falls, Ont.; Richard Alfred Ireland, Trenton, Ont.; David Campbell Irwin, 8 Ossington Avenue, Ottawa, Ont.; Warren Frederick Lockett, 24 Stuart Street, Kingston, Ont.; Herbert Kent Manning, 29 Alum Ave., Toronto; George Robert Miller, 781 W. 10th Street, Owen Sound, Ont.; Finlay Munroe, Maxville, Ont.; Archibald McCausland, 92 Metcalfe Street, St. Thomas, Ont.; Claude Andrew McClenahan, Milton, Ont.; Wyatt Lorne McIlwraith, Woodstock, Ont.; James Franklin McLay, Woodstock, Ont.; Charles Ernest McLean, Athens, Ont.; Edmund Morell Alexander Oldham, Chatsworth, Ont.; William Albert Scott, Langham, Sask.; Charles Edward A. Trow, 33 Whitney Avenue, Toronto; Donald Alexander Warren, 128 Hughson Street, Hamilton, Ont.; Fred Earlby Webb, Aurora, Ont.; Arnold Larne Wellman, Rural Mail Route No. 2, Harold, Ont.; Louis Edwin Williams, Talbot Street, St. Thomas, Ont.

The Physician's Library

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1912. Octavo of 842-pages; 219 illustrations. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, $5.50 net. Canadian Agents, J. F. Hartz Co., Toronto.

This volume represents the sixth volume of collected papers by the staff of the Mayo Clinic. It contains, as the name would indicate, the articles written and presented for publication during the year 1912. The contributors number in all 22, of which number the names of at least two Canadians appear, viz., Drs. Donald C. Balfour and M. S. Henderson, both graduates of the University of Toronto. The volume is divided into papers dealing with: (1) The Alimentary Canal; (2) Hernia; (3) The Urogenital Organs; (4) The Ductless Glands; (5) The Head, Thorax, Spinal Column and Extremities; (6) Technic; (7) General Papers.

The 1912 volume is nothing short of a *Multum in Parvo,* and a valuable addition to medical literature.

A Guide of the Dissection of the Dog. It is by O. Charnock Bradley, Principal of the Royal Veterinary College, Edinburgh. London: Longmans, Green & Co.; Agents for Canada and Newfoundland: Renouf Publishing Co., 25 McGill College Ave., Montreal.

This book is primarily for the veterinary students, a guide for the *Dissection of the Dog.* It will, however, prove of utmost value to the medical men who have occasion to use the dog in being concise, having a goodly number of illustrations and complete index. I can recommend it strongly to any one doing experimental animal research as a book filling a long-felt need. It is a pioneer in that it is probably the first book of its kind written in English.

D. E. R.

Diseases and Deformities of the Foot. By John Jos. Nutt, B.L., M.D. E. B. Treat & Co., New York.

The conditions of modern life set the foot so distinctively apart and cause discomfort or suffering to so many persons that a monograph upon the subject is fully warranted.

The author has had at his disposal so large an amount and variety of clinical material as to afford a large experience, which, with careful study and analysis of his cases, has enabled him to produce a thoroughly useful book.

His description of the anatomy, the physiology and the examination of the foot is clear and excellent. His account of the treatment of congenital club-foot is needlessly complicated, though sound, in the principles of treatment. It may fairly be a point of criticism, that he employs too largely mechanical aids in the nature of braces and club-foot shoes. The number of cases of congenital club-foot, whether in the child or adult, which cannot be well corrected by manipulation, tenotomy and fasciotomy, together with plaster-paris as a simple and retentive dressing, is exceedingly limited, probably less than five per cent. His recommendations in the treatment of paralytic deformities are in the main safe and effective.

The most marked shortcoming of the book is in the very little attention given to the footwear. Faulty footwear, together with improper teaching in the schools regarding the use of the feet, is responsible for most of the foot discomfort and suffering which is so general.

It may fairly be said that the author has produced a compact, safe and thoroughly useful monograph, dealing with the deformities and diseases of the foot.

B. E. M.

Sterility in the Male and Female and its Treatment. By Max Huhner, M.D., New York, Chief Genito-Urinary Department, Harlem Hospital Dispensary, New York City; formerly Attending Genito-Urinary Surgeon, Bellevue Hospital, Out-Patient Department, and Assistant Gynecologist, Mount Sinai Hospital Dispensary, New York City; Member American Urological Association, American Medical Association; Fel-

low of the New York Academy of Medicine, etc. New York: Rebman Company, Herald Square Building.

This work is the result of many years of special study on the part of the author, including original research work. The cases studied were taken from the different clinics in New York City. The book is divided into nineteen chapters and covers the subject of sterility in both sexes, presenting also a practical method of treatment "based purely upon scientific investigation and accurate pre-operative diagnosis."

Experimental Physiology. By E. H. Schafer, Professor of Physiology in Edinburgh. London: Longmans, Green & Co.

This volume is based upon a small guide called *Directions for Class Work in Practical Physiology* by the same author. *Experimental Physiology* will prove most useful for primary students if used as a laboratory guide. It explains and gives illustrations of the ordinary electrical apparatus used by such students. It also gives the technique and explanations concerning experiments on muscle, nerve and circulatory system.

D. E. R.

Headache. Its Varieties, Their Nature, Recognition and Treatment. A Theoretical and Practical Treatise for Students and Practitioners. By Dr. Siegmund Auerbach, Chief of the Polyclinic for Nervous Diseases in Frankfurt. Translated by Ernest Playfair, M.R.C.P. One of the Oxford Medical Manuals, 208 pages (1913). Price, $1.50. Toronto: D. T. McAinsh & Co.

This is a subject that must interest every practitioner and student of medicine, and one which has hardly received its just consideration from many writers. The general practitioner in particular has a constant supply of patients whose chief symptom is headache, and who perhaps would never consult a doctor were it not for the fact that the pain which they suffer in the head drives them to it.

This book describes in an easily understood way not only why headaches occur, but how to divide them and diagnose their

cause and, what is of more consequence, how to cure them, if they are curable. The description of the special pathology connected with all varieties of headache is made as clear by this writer as is possible with our present knowledge of the subject. Both students and practitioners will find in this little book all that they want to know about headache. It is one of the Oxford Medical Manuals, which is of itself a guarantee of its value.

A. J. J.

Elementary Bacteriology and Protozoology: the Microbiological Causes of the Infectious Diseases. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Price, cloth, $1.75, net. Philadelphia and New York: Lea & Febiger. 1912.

This work is designed as an elementary text-book of bacteriology and protozoology for nurses and for beginners. Without being technical, it gives a good idea of the nature of micro-organisms, and then discusses with more emphasis the ways in which bacteria pass from one individual to another, how they enter the body and act when once within, and their manner of exit. Such general information concerning the character of the disease process has been included as seemed necessary to clarify the nature of microbe action. Indeed, the subject-matter in many places is but elementary bacteriological pathology. In other words, the author has endeavored to show in the simplest manner how bacteria produce disease.

A Reference Hand-Book for Nurses. By Amanda K. Beck, Graduate of the Illinois Training School for Nurses. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1913.

This second edition is even more comprehensive than was the first, and is almost indispensable to a nurse doing private duty. It will take up little room in a nurse's grip and will oftentimes prove the friend in need when a nurse is entirely left to her own resources.

The Practical Medicine Series, comprising ten volumes on the year's progress in Medicine and Surgery under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vol. 6, General Medicine, edited by Frank Billings, M.S., M.D., Head of the Medicine Department and Dean of the Faculty of the Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Series, 1913. Chicago: The Year Book Publishers, 327 S. La Salle Street. Price of this volume, $1.50; price of Series of 10 volumes, $10.00.

The volume on medicine in this well-known series of Year Books is well up to the usual standard. It, like the other numbers of the series of ten volumes, is designed especially for the general practitioner, but any one volume may be purchased separately. The present volume has many good articles, selected from the literature of the last year, devoted mostly to infection and gastro-intestinal diseases. We have no hesitation in recommending this volume to our friends.

W. J. W.

Blood Pressure. Faught.

This superb book takes the reader over a comparatively new field in medical science. It gives a brief but very accurate description of the anatomy and physiology of the vascular system. It then takes up the sphygmomanometer—its construction, and how to use it. A chapter is given to climatologic and racial influences governing blood pressure. The problems involved in athletic life are given in a most instructive form. The etiology, pathology, clinical history, and treatment, cover a large field. Every paragraph contains much that is new and very practical. It is written in classic language, and from this and the clinical standpoint it is easily the equal of any book in the medical catalogue. It is published by the W. B. Saunders Co.

J. H.

What Heart Patients Should Know and Do. Suggestions for persons suffering from Diseases of the Heart and Blood-vessels; Exercise, Diet, Prevention, etc., and Advice as to the regulation of their lives. By James Henry Honan, M.D.; Rush Medical College (University of Chicago), M.D.; Imperial Friedrich Wilhelm University of Berlin, M.D.; Special Lecturer on Cardio-Vascular Disease in the University of Georgia; Honorary President and formerly Active President of the Anglo-American Medical Association of Berlin; Mitglied des Vereins für Innere Medicin Deutschland; Mitglied des Aerzte Verein Lu Bad-Neuheim, etc. New York: Dodd, Mead & Co., 1913.

The author of this little work is quite optimistic about heart troubles. He points out how the heart compensates for its defects, and the sufferer from heart disease may so live as to aid and foster this compensation. He has produced a book of 204 pages, which is easy reading and safe to give to our patients. It is based on the principles of hygiene and may be read with profit by other than heart cases. W. J. W.

Diagnosis of the Malignant Tumors of the Abdominal Viscera. Professor Rudolph Schmidt, Professor of Medicine in the University of Innsbruck. Authorized English Version by Joseph Burke, Sc.D., M.D., Attending Surgeon, Buffalo Hospital of the Sisters of Charity; Consulting Surgeon, Emergency Hospital, Buffalo, N.Y. Rebman Company, New York, Publishers.

This book of 360 pages contains a wealth of material illustrating the methods employed for arriving at the diagnosis of malignant tumors of the abdomen. One half of the book is devoted to a summary of the points of diagnosis in the case of individual viscera. The remaining half presents the clinical record of a large series of cases from which the author has drawn his conclusions.

The work is thoroughly practical and full of very important and suggestive data. It is, in fact, a valuable contribution to the study of visceral carcinoma, and without doubt will be widely consulted by those who are working in this field either in the research laboratory or at the bedside.

Obstetrics for Nurses. By Joseph B. De Lee, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (4th) edition. 12mo of 508 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $2.50 net.

The nurse will find a fund of information within the pages of this clearly-printed, well-illustrated work.

In his preface to the fourth edition the author remarks that but few changes in the text were necessary, "the fundamentals of obstetric nursing remaining the same from year to year." Careful reading of this newest edition will nevertheless prove profitable and convincing that here Dr. De Lee has the last word.

In the chapter on Infant Feeding, by Dr. F. X. Halls, some changes will be found. That on Cesarean section receives lengthy notice, while the after-care of fistula operations, blood transfusion, and Memberg's method for the control of hemorrhage, are among new subjects. M. C.

The Doctor in Court. By Edwin Valentine Mitchell, LL.B., of the Massachusetts Bar. New York: Rebman Company, Herald Square Building, 141-145 West 36th St.

The purpose of this book is, as the writer puts it, "an attempt to put briefly and in high relief, the general principles of law relating to the medical profession, and the reasons for those principles," as "a knowledge of the duties and legal obligations of the profession will help its members to foresee and forestall unpleasant eventualities likely to grow out of their relation with their patients."

While this book is full of valuable hints, as well as a large amount of what might be called common sense and medical ethics, and for this reason alone is valuable to a great many men, still so many of the cases described have been tried and decided in American courts that it is perhaps not of as much value here as it is in the United States. The subject, too, is rather a large one to be fully discussed in such a small volume.

A. J. J.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS *

Physicians have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out from New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites, and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

Many explanations have been given as to why these springs have proved so much more efficacious than other springs. Among these has been the belief by many eminent physicians that the waters contained a large amount of radio-activity. To test this the Company had an examination of many of its springs made during the summer of 1913 by Professor John C. Hemmeter and Dr. Ernest Zueblin of the University of Maryland. They made a very careful examination, and reported the results in a

*Publisher's Department.

long detailed and signed report which shows that there is a great amount of radio-activity in all of the waters.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced, there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information H. Albert, Esq., Hot Springs, Va., U.S.

ICE CREAM AND CHOCOLATES

The well-known firm of William Neilson, Limited, completed its financial year Dec. 31st, and reports the business as much the largest in the Company's history; the increase over 1912 being in excess of 30 per cent. The profits to the Company's shareholders were extremely satisfactory. The high class goods of this Company are sold in the best stores in every town and city from coast to coast.

The new model and sanitary plants of Neilson's are situated at 277 to 311 Gladstone Avenue, Toronto, where visitors are always welcome and shown over the immense works. The Company also owns an extensive creamery in Oxford county.

Early last year the William Neilson, Ltd., Company made an issue of $300,000 First Mortgage 6 per cent. Sinking Fund Gold Bonds, which were underwritten by Messrs. Ferguson and Sanson, Bankers, 313 and 314 Continental Life Building, Toronto. The bonds are regarded as one of the best gilt-edged investments in the market to-day.

A NEW PRIVATE HOSPITAL

The profession are invited to call at 545 West Marion Street, Toronto (off Roncesvalles Avenue, near Queen Street), where a new private hospital has been opened by Mrs. S. Armstrong. There is accommodation for five patients, the rates being from $18.00 to $25.00 per week. The management conduct the hospital along strictly ethical lines.

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Editorials

IS CONDENSED MILK A DANGEROUS FOOD FOR BABIES?

Before answering the question, asked at the head of this editorial, it will be appropriate to quote certain definitions, given in an Order-in-Council issued November 3rd, 1910, and referring to different kinds of condensed milk manufactured in Canada. "Skimmed milk is milk from which a part or all of the cream has been removed and contains not less than eight and one-half (8.50) per cent. of non-fat milk solids." "Condensed skimmed milk is skim milk, from which a considerable portion of water has been evaporated, with or without the addition of sugar." "Condensed milk is milk from which a considerable portion of water has been evaporated and to which sugar has been added. It contains not less than 28 per cent. of milk solids and not less than 7.7 per cent. of milk fat." "Evaporated milk is milk from which a considerable portion of water has been evaporated and contains not less than 26 per cent. of

milk solids and not less than 7.20 per cent. of milk fat." Fortunately, Canada does not produce much skimmed milk. It is hardly necessary for us to state that such a product is not suitable for infant feeding; but we note from our foreign reports that this product is causing some anxiety. In a recent report by Dr. Andrew s, of St. Bartholomew's Hospital, London, England, it is stated that out of 45 samples of condensed milk which were analyzed, 43 were of the skimmed milk variety. It would appear, therefore, that the English market is flooded with this low-grade product. In Canada, it is an offence to market a condensed skimmed milk, which is not clearly labelled as such, and this protection is a wise one, and possibly explains the absence of this variety from our market.

In reference to condensed sugared milk, Mr. McGill, Chief Analyst, reports in Bulletin No. 208, issued May 26th, 1910: "It will be seen that 14 brands, out of 25 tabulated, reached the required standard for fat (7.7 per cent.), while 5 others come within one-half of one per cent. of its requirements. Of the six remaining brands, some are professedly manufactured from skimmed milk." The mean results of the nine brands of evaporated, unsweetened milk are as follows: Three brands were above the standard; three brands were within one-half of one per cent. below the standard; three brands were below the standard. Mr. McGill says: "An inspection of these tables shows that considerable care is taken in the manufacture of condensed milk. In most cases, the difference in fat value between the averages for 190

and 1910 is less than one-half of one per cent.; and, with a legalized standard to be met, it is reasonable to believe that future inspections of this article will show still more constancy and uniformity in the output."

It is quite likely, therefore, that, if the department were to order an analysis of condensed milk in 1914, all or nearly all of the samples, taken from ocean to ocean in Canada, would be found to reach the standard provided for by the Order-in-Council. No one claims that fresh cow's milk is as good for a baby as the maternal supply. Neither does anyone claim that condensed milk is as good for a baby as the fresh article would have been. However, condensed whole milk is certainly preferable to the indiscriminate fresh milk supplies of many towns and cities in Canada. A milk prepared in this way, if securely canned and stored in a cool place, will keep for a limited time, without developing any undesirable qualities.

In using a supply of condensed milk, the fresher it is when used the better. As the supplies of this article are made throughout the year, there should be no difficulty in getting a product for consumption, which is less than three months old. Unless a medical health officer can guarantee that perfectly fresh milk is delivered to poor and rich in the municipality which he serves, he should welcome, in the interests of infants as well as grown-up people, an abundant supply of well-prepared condensed milk.

J. J. C.

DR. BLOODGOOD'S OPINION ON THE CANCER PROBLEM

In a paper entitled "The Added Responsibility of the Surgeon When Called Upon to Treat Surgical Lesions in their Earlier Stages," Dr. J. C. Bloodgood, Baltimore, proposes, among other things, a method for obtaining a favorable prognosis in cancer (*Journal of the American Medical Association,* Sept. 20, 1913). He says "At present, so few patients seek advice in the early stages of cancer, that we must depend on the clinical investigations of the larger group, who come under our observation in the later stages, for the evidences of the clinical picture of the earlier stages." Surgeons are urged to learn the earlier stages of cancer, for the benefit of the individual patient, and also for that of future patients. Clinical records of cases of cancer are necessary. In the more advanced stages of malignant disease, the history should be taken two or more times; because new and important information may be obtained. Clinical histories, taken by fourth-year medical students, should be checked by the senior surgeon. Useful additions may be made to histories from information volunteered by the patients, when announcing the ultimate results of surgical interference. Such work, and the study it requires, throw light on the individual case; when multiplied, through the efforts of many recorders, they help to promote a knowledge of the true etiology of cancer, by focussing the attention of students on the minimum of symptoms

observed in the early stages of that disease. Besides, surgeons, who have been trained in the elaboration of such data, will become, in later life, valuable public servants; because they will be in a position to advise the people to seek operation for cancer, while the disease is yet in an early stage—the stage when operations effect 80 per cent. of cures. Unfortunately, in the past, and also at the present day, when a case of cancer is brought to the notice of a surgeon, the diagnosis is easy; but the prognosis is bad, and complete operations in well defined cancers yield only 30 per cent. or less of permanent cures.

Cancers, exposed to observation, attract the attention of patients and their neighbors and are soon brought to the notice of physicians or quacks. If the laity are taught to see the necessity of an early intervention in cancer; if physicians are taught to diagnose cancer in its incipiency; if surgeons are trained to remove it thoroughly, we should no longer fear cancer of the lips, tongue, gum, mucous membrane of the mouth, and of the skin of the body. The evidence seems to show that very early treatment of cancers, situated in these regions, yields almost 100 per cent. of cures. Dr. Bloodgood acknowledges, however, that, in cancer of the tonsil, pharynx, nose and antrum, the chances of cure are small, even when the disease has been diagnosed early. To cure a cancer of the antrum, we should recognize and eradicate nasal polypi and ulcers in the precancerous stage.

He holds, that complete removal of a sarcoma in muscle offers a considerable probability of cure.

Likewise, that a cure of giant-celled sarcoma of bone may probably be effected in the early stage, by curetting, without interfering with the continuity of the bone. He remarks: "We have sufficient evidence to show that sarcomata of bone are very frequent after injury." Roentgenograms should be taken frequently during the early stages of sarcoma. Dr. Bloodgood does not know of a single recorded case of cured cancer of the thyroid gland, which had been diagnosed clinically. The only cures of cancer of the thyroid gland, which have been accomplished, are those, which were excised as benign growths; but, after excision, were found to be cancerous. Nodules of the thyroid, whether single or multiple, are, at first, small and should be excised; there is no excuse for delay, which adds to the difficulty of the operative technic. In the removal of a "mixed tumor," in, or in the region of, any of the salivary glands, he finds that recurrence is entirely due to the practice of enucleation. He thinks that, if this kind of tumor is attacked when small, it may be completely removed, without injuring the facial nerve.

In breast lesions, early operation is advised. The object of exploring a tumor of the breast, immediately after its appearance, is to remove cancer in its most curable stage. The exploratory incision, however, should be followed immediately by operation, if a gross examination of the growth reveals cancer. Retraction and ulceration of the nipple and dimpling of the skin are signs of cancer of the breast. Palpable lymph nodes in the axilla are not particularly help-

ful in the diagnosis. Their absence does not exclude cancer; their presence does not necessarily mean cancer. Like Kocher, Dr. Bloodgood favors early operations in cancer of the stomach. He remarks, that it seems to be the consensus of expert opinion, to-day, that indurated nodules in the stomach should be resected.

Dr. Bloodgood's method of obtaining information as to the appearances and characters of cancer in the early stage is practicable, and promises to be very useful. When he and his confreres obtain trustworthy data on this subject, we have no doubt, that they will be quite willing to communicate their findings to the medical profession.

J. J. C.

LUNDVALL'S TREATMENT OF DEMENTIA PRECOX

Any treatment, which disproves the discouraging prognosis of dementia precox, deserves study and trial. In a letter published in the *New York Medical Record,* January 3rd, 1914. Dr. Bayard Holmes, Chicago, shows that, in Massachusetts, out of each 1,500 admitted to the state hospitals with that diagnosis, during seven years, only one recovered. Systematic writers give a rather better prognosis, allowing that from one to eight in each 100 patients recover, with some defects. The etiology of this disease is unknown and its pathological findings are trifling; its duration is long, averaging over ten years.

The patients make up a considerable percentage of the asylum population in different countries.

For many years, it has been known that febrile diseases, such as erysipelas, typhoid fever, often exert a temporary or even permanent improvement in the psychic and physical conditions of patients, who have dementia precox. The change in their condition is thought to be brought about by the hyperleucocytosis, which results from the presence of a febrile disease. This view is supported by the actual blood picture of dementia precox. Thus, Bruce, in "Studies in Clinical Psychiatry" (1906), directed attention to the leukocytosis and polycythemia, that mark the remissions of dementia precox. He noticed that hyperleukocytosis was present in improvement and leukopenia in deterioration. Other observers continued his researches and developed a blood picture, as characteristic of dementia precox, as the blood picture in typhoid fever is of that disease.

Besides, there is evidence to show that dementia is a toxic disease; the cyanosis and dilatation of the blood vessels observed in it support that view. Even in early cases of dementia precox, there is, in six-tenths of the cases, a characteristic pupillary complex (Westphal's stare), in which the pupils are widely dilated and the normal pupillary unrest and the normal reaction to touch are absent, while, all the time, light reflex remains present and normal. The pupils assume a drop-shaped or slit-like form under miosis. Only one pupil is sometimes affected.

Efforts are now being made, when treating cases of dementia precox, to produce an artificial hyperleukocytosis, thereby endeavoring to obtain that improvement in their condition, which had been previously observed in cases of the disease when affected with typhoid fever or other febrile complaint. The nucleates of sodium have been injected subcutaneously by Donath, Fischer, Ittan and Lundvall. On nine patients Ittan used subcutaneous injections, at intervals of ten days or less, of 50 cc. of a one per cent. solution of the nucleate of sodium; chills, fever and leukocytosis followed, and, in two cases, betterment ensued. One patient, mute for twelve years, volunteered conversation and played chess.

Lundvall uses subcutaneous injections of 2 to 15 cc. of the following sterilized solution, at intervals, corresponding to the duration of the reaction, of 4 to 20 days: sodium nucleinate, 10,000; arsenous acid, .0005; sodium cinnamate, 1,000; distilled water, 40,000. While there is sometimes pain at the seat of the injection, no abscesses were produced in several hundred cases, which were treated. A few hours after the injection, a more or less pronounced chill follows, and the patient's temperature rises two or more degrees. The leukocytes increase correspondingly; but, sometimes, the leukocytes increase, without any increase of temperature, or the hyperleukocytosis remains, after the subsidence of the high temperature.

Lundvall reports 18 cases in detail, eight of which recovered, some of them rapidly, others slowly, but

all completely; five or six made remarkable improvement. Of the remaining five cases, only three, and these of doubtful diagnosis, showed no improvement.

According to H. Roger (*Introduction to the Study of Medicine*), leukopenia shows hematopoietic insufficiency and justifies a gloomy prognosis. A moderate degree of hyperleukocytosis would be favorable. An excessive hyperleukocytosis and polynucleosis reveal intense effort and reaction, bearing a relation to a grave condition of the diseased organism. Respecting the real value of Lundvall's treatment of dementia precox, two questions arise: (1) Will the number of leukocytes obtained by the treatment be similar to, or more than, the number found in the blood of a normal person (4,000 to 7,000 per cubic millimetre)? (2) Will the leukocytes remain at these figures in the blood of a dementia precox patient, treated by Lundvall's method? It would be very interesting to learn if Lundvall's treatment of dementia precox, which has proved successful in 40 per cent. of a most unpromising series of confirmed patients, has been tried in the crowded asylums of Ontario.

J. J. C.

YES! FROM WHERE?

Last year the per capita cost of maintaining patients in the Boston City Hospital was $1.80 per day.

In Bellevue and allied hospitals with 1,300 beds it was $1.85. In Toronto, if they are given modern and

proper care, the cost cannot be much under $1.50. It is always greater in small than in large hospitals. Certain friendly societies have, through their agent, offered most generously to patronize the new hospitals if society members are admitted at 70 cents per day and placed under the care of the lodge doctors.

Where will the difference between 70 cents and $1.50 come from?

SHOULD BE MANUFACTURED BY THE STATE

THE Ohio Legislature, according to the *Lancet-Clinic,* appropriated last session $100,000 for the manufacture of anti-sera to prevent hog cholera.

It refused $25,000 asked for to establish a plant for the making of anti-diphtheritic serum. The present cost per dose of this serum in Ohio is about $7.50. If made in a state institution it would be about 50 cents. Is comment necessary?

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

HEMATOMYELIA *

By Julian Louden, B.A., M.B. (Tor.), M.R.C.S. (Eng.).
Assistant in Clinical Medicine, University of Toronto;
Junior Assistant Physician, St. Michael's Hospital, Toronto.

Mr. Chairman and Fellows of the Academy,—

Before presenting my case of hematomyelia I shall take the opportunity of reviewing a few points in reference to this condition. In order to fully appreciate the significance of the various disturbances which may be found in the motor and sensory systems in cases of hemorrhage into the spinal cord, it might be well to commence by saying a few words concerning the structure and functions of the vertebral cord and nerve roots.

First, let me remind you that the two outermost membranes of the cord are prolonged peripherally into the intervertebral foramina to form tubular sheaths for nerve roots. The pia mater or innermost membrane is closely adherent to the outer surface of the cord, and sends fibrous strings and laminæ into the cord to act as a scaffolding for the support of the various elements. The blood supply to the cord is derived from three arterial chains or trunks formed by an anastomosis of branches from the vertebral, intercostal, lumbar, and sacral arteries. One of these arterial chains is ventral and lies in the pia mater of the antero-median fissure, while two are dorsal and lie in the pia mater on the posterior aspects of the sensory roots. Encircling the cord on the inner surface of the pia is a vascular anastomosis which is derived from all three trunks. From this circle numerous branches penetrate the cord along the various fibrous septa. The ventral or anterior trunk gives off at all levels branches which pass deeply into the cord to reach the anterior commissure and then turning to the right or left reach the anterior horns.

* Read before the Section of Surgery, Academy of Medicine, Toronto, October 21, 1913.

In the anterior horns these divide into ascending and descending branches which supply all the grey matter except the posterior halves of the posterior horns. They also supply a small portion of the adjacent white matter. All the rest of the cord is supplied by the penetrating branches of the two posterior trunks and the encircling anastomosis, as before mentioned. We thus have two sets of arterial supply, and it is very important to note that between these two sets very little if any anastomosis takes place. It is also important to note that the set supplied from the anterior trunk is much the more vascular of the two.

In regard to physiology we know that the anterior nerve roots are motor in function and that the posterior nerve roots are sensory. If the function of these motor and sensory roots be abolished there will be paralysis and complete anesthesia in the parts supplied by the affected roots. Within the cord we have quite a different physiological state. Here the pyramidal tracts are motor in function, and loss of function results in paralysis of all the voluntary muscles below the level of the lesion. The anterior horns are also motor, and disease in this situation affects the muscles at the same segmental level, just as obtains in disease of the motor nerve roots. The sensory grouping of impulses is rather complex. The pain, heat, and cold impulses after entering by the posterior roots cross to opposite sides of the cord in the anterior grey commissure before ascending towards the brain. After crossing the middle line the ascent takes place in the grey matter of the anterior horns according to some authorities. Others hold that the spinothalamic tracts, which are situated just internal to Gowers' tracts, are the tracts where the ascent takes place. The touch impulses, except tactile discrimination, ascend either in the posterior columns of the sides of entrance or in the spinothalamic tracts of opposite sides after having crossed the middle line in the same manner as the pain, heat, and cold impulses. Tactile discrimination ascends only in the posterior columns on the sides of entrance. Thus all the tactile impulses, except tactile discrimination, have a choice of two routes, and consequently are less likely to be completely cut off in cord diseases than those impulses having no such choice. The sense of passive

position, like that of tactile discrimination, ascends only in the posterior columns of the sides of entrance.

The etiology of hematomyelia is variable. The great majority of cases are due to trauma such as occurs from falls or blows on the back, diving into shallow water, and riding under low archways. We must also remember myelitis, tumors, purpura, arteriosclerosis, and caisson disease as possible causes. Various means as to the way in which the hemorrhage takes place in the traumatic cases are given. One theory is that there is a commotion or concussion transmitted to the cord, just as in the cases of cerebral concussion. This is quite likely to be the way in which the disseminated or punctate varieties of hematomyelia take place. Some consider a sudden rise of pressure in the central arteries of the grey matter to be the essential factor. This, they say, is brought about by a sudden flexion of the cord forcing the blood out of the anterior spinal artery and into its central branches in the grey matter. Others think that overflexion or overextension of the cord causes traction on the central arteries and that these are most likely to rupture in the most vascular area, viz., the grey matter. This last theory seems most acceptable for the majority of cases. The level of the hemorrhage is usually cervical where flexion and extension are greatest.

The symptoms depend upon the position of the hemorrhage and the damage caused by it. It is usual for them to come on quite suddenly and to reach their maximum within a few minutes. The vertebral column may or may not be injured. Pain over the site of the lesion or referred along the nerves at the upper margin of the lesion is sometimes a transient symptom. The temperature at first is normal in cases uncomplicated by inflammation. It may become slightly raised after a few days. In most cases the sensory disturbances are marked. If the cervical region be involved there will likely be loss of sensation to pain, heat and cold below the level of the lesion, with flaccid paralysis of the arms and legs. Oculo-pupillary changes may also be present. In less severe cases pain, heat, and cold may be lost without any paralysis or with only a slight paralysis at the level of the lesion. In examples of this sort the hemorrhage has taken place into the grey matter on both sides. The

pyramidal tracts when affected are rendered functionless by centrifugal pressure, while the pain, heat, and cold fibres are involved as they cross in the grey commissure at the level of the hemorrhage and also as they ascend, whether that ascent takes place in the anterior horns, as held by some, or in the spino-thalamic tracts, as maintained by others. The oculo-pupillary changes are due to disturbances in the communications with the cervical sympathetic chain. In addition to such symptoms there is nearly always loss of control over the rectal and vesical sphincters. In very severe cases when the hemorrhage affects a whole transverse section of the cord there will be complete anesthesia below the level of the section, besides the motor and sphincter symptoms already noted. One of the most interesting groups of symptoms which one may find is that due to a complete one-sided hemorrhage. Both sets of blood supply rupture in one half of the cord. The resulting clinical picture is called the Brown-Séquard syndrome. This syndrome consists of paralysis, loss of sense of position, of tactile discrimination of compass points, and of vaso-motor tone on the side of the lesion and below its level, while on the opposite side in a corresponding position one finds loss of sensation to pain, heat, and cold and sometimes a loss or disturbance of all the touch sensations except tactile discrimination. Other symptoms or combination of symptoms may be present, depending upon the position of the hemorrhage.

The course of the disease in typical cases is usually fairly constant. If the loss of movement and sensation has been complete the first sign of improvement is a restitution of the tactile and pressure sensibilities and the sense of position. After or during the same time, the deep reflexes return, and the flaccid paralysis gives place to a spastic condition with the extensor type of plantar reflex. Voluntary movement gradually returns, but is often interfered with by the spasticity of the muscles. The retention of urine soon gives place to overflow incontinence, and the bowels become constipated, even though the rectal sphincters be patulous. Trophic ulcers may develop and prove to be very troublesome. The pain, heat, and cold sensibilities are the last to return, and may be permanently lost. If these sensations do return, pain comes back before heat and cold. In

the less severe cases, where there is loss of the pain and temperature sensibilities with or without paraplegia. the ultimate recovery may be practically complete.

I shall now bring my patient before you. The history of his complaint and the notes on his condition from the time of onset until the present are briefly as follows:

W. W., a clerk, age 21, single, was admitted on July 5, 1913, in a dazed condition to St. Michael's Hospital under the care of Dr. Silverthorn, who asked me to make an examination.

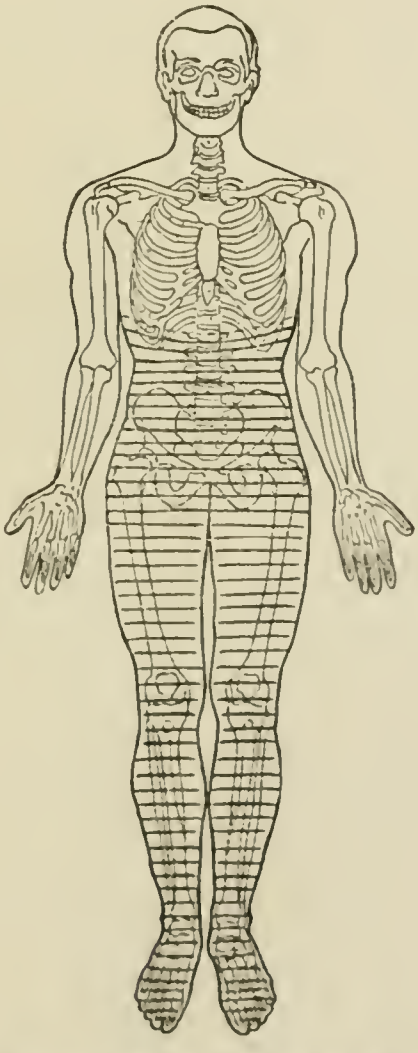


Fig. 1. The shaded region represents the area of loss of sensation to pain, heat, and cold. This obtained over the back of the body and lower limbs as well as over the front. The touch sensations and the sense of position were preserved.

History of Present Illness.—On July 5, between seven and eight o'clock in the morning, the patient inadvertently walked into an open elevator pit and fell to the bottom, a distance of eight feet. After falling he was not unconscious, but did not remember anything until about one hour later when he arrived at the hospital. At that time he realized that he was unable to move his legs.

Examination a Few Hours after the Accident.—The patient was conscious and perfectly rational. There was a slight scalp wound over the right parietal region and rather extensive bruising of the skin and subcutaneous tissue over the sacrum. The legs were flaccid and completely paralyzed. The plantar, patellar, cremasteric and abdominal reflexes were absent. On testing the sensations, it was found that although all forms of tactile sensation as well as the sense of position were present, pain, heat, and cold were lost from the feet up to the eighth dorsal segment (Fig. 1). There was no pain or zone of hyperesthesia at the upper level of the sensory disturbance. The urine was running away continuously and the rectal sphincters were somewhat patulous. There was no loss of power in the arms and no cranial nerve palsy or oculo-pupillary changes. No injury to the vertebral column could be made out either by ordinary examination or by the X-rays. The temperature was normal.

Diagnosis.—The diagnosis was easily arrived at in this particular case. The dissociated anesthesia with absence of shooting pains or a hyperesthetic band ruled out a root lesion. Myelitis was ruled out by the absence of any rise in temperature, and the history of injury followed by a sudden onset of symptoms in a patient previously well. The paralysis of the legs, the loss of sensation to pain, heat, and cold up to the lower thoracic region, and the bladder and rectal disturbances could be explained most feasibly by a hemorrhage into the grey matter of the cord at the level of the eighth dorsal segment. In this connection you will remember that I pointed out that the vessels in the grey matter are the ones most commonly ruptured. The functions of the crossed pyramidal tracts and also the spinothalamic tracts (if these be the paths for the ascent of the pain, heat, and cold impulses) were lost either by an extension of the

hemorrhage into their substance or by centrifugal pressure from the hemorrhage in the grey matter or by a combination of both these processes (Fig. 2). The posterior columns conveying impulses for the sense of position and for touch sensations escaped injury. The level of the hemorrhage in this case was noteworthy on account of being so low in the dorsal region instead of its usual site in the cervical region.

Subsequent Course of the Symptoms and Signs.—For some weeks after the accident the bowels were constipated and there was retention of urine with overflow incontinence when not relieved by catheterization. Nine days after the accident the toes of the right foot could be slightly moved, and five days later the toes of the left foot also showed signs of returning power.

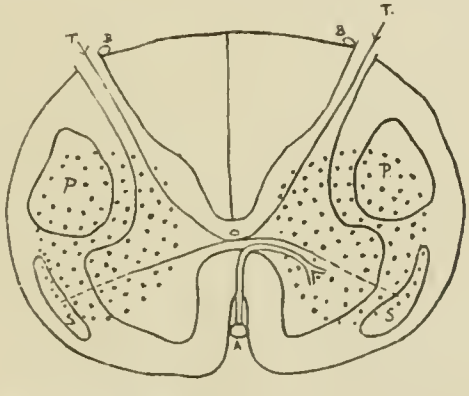


Fig. 2. Diagrammatic representation of probable distribution of the hemorrhage into the spinal cord at the eighth dorsal segment. A, anterior spinal artery with one of its branches to the anterior horn. B, posterior spinal arteries. P, crossed pyramidal tracts. S, spino-thalamic tracts. T, pain, heat, and cold fibres. The dots represent the supposed area of hemorrhage.

From this time onwards the progress towards recovery was quite rapid. All the leg muscles soon began to gain motor power. Seventeen days from the time of admission the knee-jerk and extensor response of the great toe were obtained on the right side, and three days later the same phenomena could be elicited on the left side. At this time a large amount of blood was passed in the urine. This hematuria continued for a couple of days and was explained as being due to a vaso-motor congestion in the urinary system. Bed sores developed over the sacrum and both trochanters and were rather troublesome to dress, although quite painless. On September 8, about two

months after the onset of symptoms, the patient was able to walk with the aid of a stick. The legs were spastic. The knee-jerks were very brisk and there were ankle clonus, patellar clonus, and the extensor type of plantar reflex on both sides. The control over the bladder and rectum was fairly good, but the pain, heat, and cold sensations were lost over the same area as on admission (Fig. 1). At present, October 21, the patient walks with a somewhat spastic gait without the aid of his stick. The knee-jerks are very brisk, and ankle clonus and patellar clonus can be elicited in either leg. The extensor type of plantar reflex can also be elicited at times on both sides. The question as to whether the pyramidal tracts have been permanently damaged by hemorrhage into them, or simply deranged by centrifugal pressure of a more central hemorrhage, now presents itself again for solution. From the spasticity of the legs and the condition of the reflexes it would appear that there must have been some hemorrhage into the pryamidal tracts as well as the hemorrhage which we previously assumed to have taken place into the grey matter (Fig. 2). The sensation to pain has returned over the back of the right leg, thigh, and buttock; but the loss to heat and cold is practically identical with that found on the first examination. The bed sores have practically healed. Rombergism is absent, as we should expect it to be with the preservation of the sense of position and the tactile sensations. The patient was discharged from the hospital six days ago, and intends to return to work in a couple of weeks.

83 St. George Street, Toronto.

Society Proceedings

ACADEMY OF MEDICINE, TORONTO

At the meeting of the Section of Surgery, Toronto Academy of Medicine, 21st October, 1913, in addition to the address of the Chairman, Dr. Wallace Scott, cases and reports of cases presented by Drs. Wm. Oldwright, Julian Loudon and Roy Thomas, an address was delivered by Dr. C. L. Starr, of Toronto, on his personal impressions of the 1913 International Medical Congress. Dr. Starr made special reference to the work of the surgical section.

Dr. William Oldwright, of Toronto, read a report of the first case of removal of the uterus and ovaries performed in Canada. This was in 1874 by Dr. Tennen, of Montreal. In this case the pedicle was transfixed outside the abdominal wall.

Dr. G. A. Wilson congratulated Dr. Loudon upon the care and thoroughness with which he reported Dr. Silverthorn's case of traumatic hematomyelia. He pointed out that Dr. Loudon failed to show that if there was any loss of consciousness, it was not a case of primary pure hematomyelia, for in that condition there is no loss of consciousness. The symptoms of hemorrhage into the cord are variable, because hemorrhage may take place into the cord at any level. He drew attention to the fact that this form of hemorrhage usually takes place into the anterior median artery, and that the hemorrhage is often confined to the crossed pyramidal tract. He said the chairman would remember a case that came under his care, a foreigner who came in with complete paraplegia and in one month was walking again. There are not many reported cases where the individual walks in so short a time. He was of the opinion that a subdural hemorrhage will not produce anything but slight symptoms, and no operation is called for except possibly in hemorrhage into the cauda equina.

Dr. Wallace Scott reported three men who fell a distance of ninety feet. There were seven in the lot that fell, and of the three that remained alive, none lost consciousness. In these cases all power of bladder was lost. Each man was able to move his legs and feet, however. Two of them recovered power to urinate in four days. The other took four months to recover this power. The latter patient had to be catheterized frequently daily during the four months. He had a fracture of one femur and a fracture of both bones of one arm. These fractures remained ununited until after the fourth month. In this latter case he believed there had been a concussion of the spinal cord which in some way had disorganized the urinary centre and had interfered with the trophic nerves, and the first sign of anything favorable was that he was able to urinate.

This patient did not develop cystitis. He now walks without a limp, and has been working several years since this accident as an engineer. There is this condition in which there is a general shaking up of the elements of the cord in addition to the hemorrhage.

Dr. Primrose thought the remarks which Dr. Wilson made in the discussion were of importance. He reported a case that occurred twenty years ago, a man that had fallen from a height on to the broad of his back. His hat fell off and after getting up he used his hands in putting his hat on again. He walked home and lay down. Soon after this he began to feel a sensation of numbness all over, and shortly became completely paralyzed. This paralysis included the lower portion of the brachial plexus. Dr. Primrose's view of this case was that it was one of hemorrhage into the cord. He had a consultation with most of the members of the hospital staff, and it was decided that the man should not be operated upon. This is a case where he thought an operation might have brought relief from the paralytic symptoms. It was no doubt a subdural hemorrhage.

If Dr. Wilson is right that these cases of subdural hemorrhage and extradural will get well without operation, then he is not in favor of Dr. Primrose's view that these cases should be operated upon. The case reported by Dr. Primrose remained paraplegic and died several months afterwards.

In closing the discussion Dr. Loudon said he had not had experience of hemorrhage outside the cord where an operation might be advised. He had not seen any case relieved by operation. He thought Dr. Primrose's case was most likely one of hemorrhage into the cord, rather than one of hemorrhage outside it. The surgery of the cauda equina is still in its infancy. In any case, if there is a decision to operate, then it must be done early before the normal electrical reactions are lost.

In regard to the patient coming in in an unconscious condition, that was the patient's own word. He was quite conscious when he was first seen at the hospital.

Dr. Roy Thomas next presented a report of two cases of placenta succenturiata, and spoke at some length on this subject. His first case, that of a multipara aged thirty, showed previous pregnancies and labors normal. In this case the placenta and membranes came away normally in thirty minutes. These were carefully examined and found intact. At no time during the puerperium was there any rise of temperature, and there was a normal lochia. The patient was apparently well and got out of bed on the fourteenth day. Four days after being up she had a profuse hemorrhage with severe cramping pains. Examination showed the cervix slightly dilated and the uterus somewhat enlarged. The vagina was packed with iodoform gauze for twelve hours. This was removed, and both cervix and vagina were packed for twenty-four hours, then by means of a loop curette a mass about the size of a walnut was removed. Hemorrhage ceased and the patient made an uninterrupted recovery. The second case was that of a primipara aged thirty, who had a miscarriage at five months. This placenta was examined and reported as being regular and entire. During labor a small mass could be felt in the right anterior quadrant of the uterus, and this was diagnosed at the time as subserous fibroid. Patient remained in bed fourteen days. Four days after being out of bed she had a hemorrhage, about ten ounces of blood, and next day a second and more serious hemorrhage took place, and a mass about the size of a small peach could be felt in the left posterior quadrant of the uterus. With the hemorrhage there was cramping pain. Patient was brought to the city with provisional diagnosis of fibroid. Under anesthetic, cervix was

easily dilated, and with loop curette a mass, now shown at the meeting, was removed.

Dr. Thomas said that these two cases were similar and typical, and that these masses could not have come from the placenta. He referred to the fact that Berkley and Bonney in their last edition defined placenta succenturiata as a small isolated placenta connected to the main mass by a leash of vessels running across the chorion. Edgar speaks of it as contributing to the nourishment of the fetus, but distinct from the main placental mass, and distinguishes it from the placenta spuria in that the latter are not joined to the main mass and their villi do not communicate with the maternal blood. In presenting the report of these two cases Dr. Thomas did so in the hope that others who had met with similar cases would communicate with him, that he might be enabled to treat the subject more extensively.

At the December meeting of the Medical Section of the Academy of Medicine, the programme provided by the Fellows was a clinical one. The cases and reports of cases were all of special interest and brought out a good discussion.

Elephantiasis.

Dr. H. B. Anderson exhibited a case of Elephantiasis. This patient, a stenographer and unmarried, was twenty-nine years of age. In her previous history she had typhoid and malarial fevers, and at present she is troubled with headache due to eye strain. This case had been before the Academy, October 7th, and at that time the statement of the case was that at fifteen years of age her ankles began to swell, and this enlargement had continued for the last fourteen years, until at the first exhibition before the Fellows of the Academy there was found a uniform swelling of the legs with no pitting on pressure and no puffiness. The swelling was confined to the lower extremities. One leg, the left one, was very much enlarged. Its circumference at the middle of the thigh being 24 inches, and circumference of the calf 23 inches; the right thigh 20½ inches and the right calf 19 inches. The swelling on both sides extended up to the groin. The blood examination was negative, no filaria

being found either of diurna or nocturna variety. Also there was no eosinophilia.

On the treatment by rest, bandaging and the use of thiosinamine, marked improvement was the result. In two months the measurements were reduced by a maximum of eight inches and a minimum of six. As a great deal of improvement took place before the administration of the medicine, probably by compressing the lymph from the lymph places, it was difficult to say how much of the improvement was due to the thiosinamine. There is no doubt the case is due to filaria, but this parasite was not found in the blood.

Muscular Dystrophy.

Dr. Julian Loudon presented a case of muscular dystrophy. Relating shortly the peculiarities of the disease, Dr. Loudon said that muscular dystrophy was a disease of the muscles differing from the spinal forms such as progressive muscular atrophy, and in children spinal muscular atrophy. The general characteristics of this disease to note are, first, the heredity; second, distribution of the atrophy; third, absence of fibrillary twitching; fourth, diminution in electrical excitability but no typical reaction of degeneration, this showing to faradism as well as to galvanism. The disease he classified under the headings:—

1. Simple atrophic. 2. Pseudo-hypertrophic; here there is atrophy with the false hypertrophy. 3. Erb's juvenile or scapular form. 4. Facio-scapulo-humeral form, where the muscles of the face, especially around the mouth, and sometimes around the eyelid, are involved. 5. Pelvic type. 6. Myotonia atrophica. 7. Transitional form. 8. Distal type.

A characteristic sign for diagnosis is that these patients, when arising from the recumbent to a standing posture, turn first into a prone position and, drawing up the feet, rise in that way. The gait is waddling, and the pelvis is raised unduly. Also the gait is high-stepping, and it is difficult for the patient to climb stairs.

The case presented was Erb's juvenile form of the muscular dystrophy. She had no atrophy of the muscles in the

lower extremities, and the ordinary superficial reflexes showed no change from normal. This young girl had three sisters married and quite healthy; three sisters younger than herself, quite healthy. She showed a marked lordosis and drooping of the shoulders, with weakness of the shoulder girdle. The protruding abdomen and waddling gait were features of the case. It was a case of congenital disease.

Lupus Vulgaris.

Dr. King Smith presented a case of lupus vulgaris. The patient, a female, had had lupus for nineteen years, and it now had progressed over a greater part of the lower right side of the body and upper right thigh.

Pemphigus Vegetans.

Dr. King Smith also reported a case of pemphigus vegetans which had presented difficulties in diagnosis. The patient was shown to the International Medical Congress. Some disagreed about the diagnosis, but Sir Malcolm Morris called it pemphigus vegetans. The case was unique in that it had lasted seven years.

Angioma.

Dr. G. S. Young presented a case of angioma which had not yielded to operation, but had been successfully treated with radium which Dr. W. H. B. Aikins had applied. This patient Dr. Young saw some nine months previous to the date of exhibition. He came to Dr. Young at that time with a growth that had been present for a number of years but now began to be painful. In the preceding seven or eight years this man had had two operations performed for the relief of his condition, but improvement was only temporary. The tumor, before radium treatment, projected about one inch from the surface of the face and extended over a large area. At the last operation this entire growth was removed, but it was not very long until it was as large if not larger than before. Inside of two weeks after radium treatment was begun the growth had markedly decreased in size, and the patient now is completely cured.

The result was certainly spectacular. The treatment of this case was by the application of radium for forty hours and the injection of twenty-one hypodermics of radium salt.

Papilloma of the Mouth.

Dr. Aikins then presented a case which had been referred to him by Dr. B. Z. Milner. This was a young lady, aet. 23, first seen in April, 1913.

In December, 1911, the patient had noticed a small lump in the upper gum on the right side. The lump became larger and she consulted Dr. Milner in February, 1912, but not again until November, 1912, when Dr. Milner excised the mass and removed the wisdom tooth. The pathologist's report was a benign papilloma.

When the patient commenced treatment there was a mass of spongy tissue on the alveolar margin of the upper jaw, and also some on the lower. The tissue broke down very rapidly with bleeding. Under two applications of a tube of radium the papillomatous mass has disappeared and left a smooth healed margin.

This case illustrates very well the action of radium on ordinary warty growths. In the same way warts on the skin can be made to disappear readily and without discomfort.

Epithelioma of the Skin.

The patient was a man aged 77, referred by Dr. Chas. Foster in February of this year. About three years ago the ulcer appeared below the right ear. It increased in size slowly, and when the patient was first seen it was one and one-half inches by five-eighths inch in area. The edges were hard, thickened and everted and the condition was definitely epitheliomatous. The lower edge of the auricle was also involved. After three heavy exposures to radium healing gradually took place and was completed in about two months.

Rodent Ulcer.

Mr. W., aged 77. An ulcerated lesion began about twenty years ago in the nasal fold of the left side of the face. When seen in April of this year it was one inch in diameter with

very thickened, hard, raised edges. The ulcerated part extended through almost to the mucous membrane of the lip. Various treatments had been used, such as cautery, caustics, ointments, etc. He had the X-ray treatment seven years ago. Radium was used at intervals, and complete healing has occurred.

Dr. Aikins also gave lantern views of several cases he had treated.

1. Angioma of the upper eyelid in a young infant, which caused considerable deformity. Within two months after the use of radium the mass had almost entirely disappeared.

2. A case of lupus vulgaris was referred by Dr. James Third of Kingston in May, 1911. The condition was of about ten years' duration. It began on the mucous membrane of the left nostril and gradually spread. Various treatments were used as cauterization, electrolysis, X-rays, curettage.

In 1905 her general health was very poor and the condition extended, and perforated the septum. Since then the skin at the alar margins had become involved, and shortly before Dr. Aikins saw her nodules had appeared on the left cheek. The nose when first seen presented a most distressing appearance, the margins of the nostrils being covered with large unhealthy granulations. There was a free foul discharge from the nostrils. Very heavy destructive doses of radium were employed, and as a result the diseased tissue had been removed, and the nostrils now present a healed margin. The disease present inside the nasal cavity was treated by radium tubes, which were inserted into the nostrils. On the cheek the nodules present have cicatrized. The patient's general health is not very good, and close watch has to be kept over the condition for fear of a recurrence of the disease. The present local appearance is regarded as very satisfactory.

3. The patient who had been referred by Dr. H. L. Anderson, of Niagara-on-the-Lake, Ont., in September, 1911, had an epithelioma behind the left ear, which had started some four years previously. At the date mentioned the area was as large as a fifty cent piece with raised, hard everted edges. The part was curetted under cocaine and a radium plaque with one lead screen left in position subsequently for twelve hours. When

seen a month later there was still an area three-eighths of an inch in diameter, which had not yet healed, but was quite healthy looking. The healing process continued and the condition had remained satisfactory since then. Photographs were shown to illustrate the condition before and after treatment.

4. Lantern slides were given showing the results obtained by radium treatment in a very large nevus which caused great disfigurement. The patient was a young man. The skin of the face was of a deep purple red studded with angiomatous nodules. There was considerable involvement of the lip extending through to the mucous membrane. On pressure the blood could be driven out to a certain extent, but not entirely. The second photograph showed the result six months after radium treatment was begun. The nodular appearance has disappeared, the distorted lip was much improved, and the color had faded to a very considerable extent, so that the patient was more than satisfied with the result.

Progressive Muscular Atrophy.

Dr. J. H. Elliot presented a case of progressive muscular atrophy. The patient was one from Dr. Anderson's service in St. Michael's Hospital. Previous to this he had been compelled to give up his employment as a boiler-maker because of weakness in his hands, making it impossible for him to hold and work the compressed air rivetter apparatus. An examination of this patient showed that he could not grasp firmly with the hand, and there was weakness of the muscles of the forearm and marked atrophy of the interossei muscles. The biceps and triceps muscles were also weakened, and in addition to the atrophy there were sensory changes. Tactile sensation was not lost but very much altered. He could not distinguish readily whether he was being pricked with the head or the point of a pin. When pinched he felt it but there was little pain. The sensation of heat and cold was practically lost. The most pronounced changes were in the distribution of the ulnar nerve. The most marked disturbance was in the right hand, the left being stronger and exhibiting very little atrophy. The left foot was weaker than the right and both feet showed a partial anesthesia. There was no progress of the disease during the two

months in the hospital, but there had been no further loss of strength. There was no Rombergism present; the pupil reflexes were normal. The clinical picture is that of progressive muscular atrophy, but with the added sensory changes there is the question whether this is not a case of syringomyelia. The Wassermann reaction was negative.

Dr. Loudon discussing the case said he had had opportunities to see the patient before the meeting and that this loss of sensation was not only to heat and cold, but to all forms of sensation, therefore this could not be a case of syringomyelia. From the symptoms presented he would think of some peripheral lesion involving both the sensory and the motor sides. For example, it might be a case of cervical rib, and he would not care to say it was not cervical rib until an X-ray had been taken. If not cervical rib then he would consider it a case of syphilitic disease, but this seems to be ruled out by a negative Wassermann. The other disease one would think of was lead poisoning. He did not consider it a case of syringomyelia nor a spinal cord condition and it is not progressive muscular atrophy.

Dr. Graham Chambers asked whether the anesthesia corresponded to the peripheral type or to the central type. In reply it was stated that the anesthesia was distributed over both hands and both legs fairly equally, and on the right hand it was distributed especially over the area of distribution of the ulnar nerve.

Thoracic Aneurism.

Dr. J. H. Elliot gave the following history of an aneurism case and presented the specimen removed from the autopsy. A man who had been ill three months csame into St. Michael's Hospital because of pain in the chest. He was in the hospital some eighteen months and then died of hemoptysis. The post-mortem finding was an enormous dilation of the ascending arch of the aorta. During life there was no diastolic murmur, but there was a systolic one over the area of the aneurism. Death was due to perforation into the lower part of the upper lobe of the lung and hemorrhage into the lung. The clinical fact of interest is that he developed this enormous aneurism in

three months' time. The Wassermann was positive and the X-ray showed the shadow of the tumor.

Hiccough.

Dr. Brefney O'Reilly reported a case of hiccough. This occurred in a female patient under treatment for cirrhosis of the liver. It was a very serious form in which all the usual routine treatment proved of no value. When it seemed as if there was no hope and the patient was dying, the ears were searched and wax was removed. Since that there has been no return of the hiccough.

Asthma.

Dr. O'Reilly also reported a case of asthma caused by the presence of a parrot. Paroxysms occurred whenever the patient was in the same room as the parrot. She was completely relieved when the offending ethiological factor was removed.

Dr. Fotheringham reported a case of asthma which was brought on as a result of eating strong cheese. When the cheese was prohibited there was no more asthma.

Dr. Marlow showed a specimen of a hard concretion which had been coughed up by a woman who had had asthma for eight years. During this period she was subject to paroxysmal attacks of coughing, and it was during one of these attacks that she coughed up this little calcareous substance one-half inch in length. These attacks developed frequently, and after losing one of her false teeth, but she had forgotten about this until after she had coughed up this specimen. Dr. Elliot considered this a concretion formed in the lung itself and later cast off.

Dr. J. H. Elliot referred to a patient who had asthmatic attacks only when she went out in the wind. It was found that her attacks were due to emanations from horses.

Dr. J. F. TenEyck reported two cases of asthma, in each of which a cure was effected by a change of place of residence.

NATIONAL CONFERENCE ON RACE BETTERMENT

Four hundred men and women of prominence, comprising the first representative group of scientific experts ever gathered in America for that purpose, met in Battle Creek January 8-12 to assemble evidence of race deterioration and to consider methods of checking the downward trend of mankind. The meeting was known as the First National Conference on Race Betterment. Through the co-operation of the press, the objects and aims of the Conference have been very widely disseminated and a resultant influence for better race ideals is anticipated.

Already the effect of the Conference is apparent in Battle Creek, where popular interest in mental and physical efficiency was awakened by a series of public-school tests which showed an alarming percentage of defective children in all grades.

The Conference had its inception in the efforts of four men, particularly interested in race betterment—Rev. Newell Dwight Hillis, pastor of Plymouth Church, Brooklyn, N.Y.; Dr. J. H. Kellogg, of the Battle Creek Sanitarium; Sir Horace Plunkett, former Minister of Agriculture for Ireland; and Prof. Irving Fisher, of Yale University. At the invitation of a central committee, chosen largely by these men, fifty men and women of national prominence in the fields of science and education consented to share in the programme. Their addresses, together with open discussion of many of the points considered, constituted a very widespread study of all phases of evident race degeneracy and the advocacy of many ideas of reform. Some of the suggested methods of improvement are frequent medical examination of the well, outdoor life, temperance in diet, biologic habits of living, open air schools and playgrounds, the encouragement of rural life, the segregation or sterilization of defectives, the encouragement of eugenic marriages by requiring medical certificates before granting license and the establishing of a eugenics registry for the development of a race of human thoroughbreds.

Among those having a share in the programme were: Rev. Newell Dwight Hillis, Jacob Riis, Judge Ben B. Lindsey, Booker T. Washington, Dr. Victor C. Vaughan, Dr. S. Adolphus Knopf, Dr. C. B. Davenport, Dr. J. N. Hurty, the

Very Reverend (Dean) Walter Taylor Sumner, and many others of equal prominence.

Some of the interesting statements of the Conference are summarized as follows:

"It will be no easy task to improve the race to the point where there will be no dependent children, but the elimination of the dependent child will be one of the best indices of the superiority of our national stock."—Dr. Gertrude E. Hall, New York State Board of Charities.

"I believe that a great deal can be done by publication of facts as to the physiological effects of alcohol, in the way of inducing educated and intelligent people to conserve their health by limiting the use of alcohol or giving it up altogether."—Henry Smith Williams, Author.

"Eugenics does not eliminate romance. We eugenists believe romance should be retained. Through the past it has proved a good thing."—Prof. Roswell H. Johnson, University of Pittsburgh.

"In order that the race may survive it will apparently be necessary to make a eugenic selection of healthy mothers and to provide that the cost of bearing and rearing children shall be equally shared by all."—Prof. J. McKeen Cattell, Editor *Popular Science Monthly.*

"The boys are learning that they have a calling just as sacred as the call to motherhood, and that is the call to fatherhood."—The Very Reverend (Dean) Walter Taylor Sumner, of Chicago.

"The negro in the south, with all his weaknesses and handicaps, is not yet in any large measure in the ditch."—Booker T. Washington, Principal of Tuskegee Institute.

"We must cultivate pure blood, instead of blue blood, if we would develop a race of human thoroughbreds."

INTERNATIONAL CONGRESS OF MEDICINE

Continued.

THE USE OF SOPORIFICS.

Soporifics and drugs relieving pain by their action on the central nervous system were dealt with by Professor A. R. Cushny, London, in a paper which he read to the Therapeutics Section in the Imperial College of Science and Technology.

A little more than forty years ago, he said, the list of drugs used for these conditions was but a short one. Since that time there had been a procession of soporifics across the therapeutic stage, each one enjoying a shorter or longer period of popularity, and the duration of their stay had seemed to depend in some cases not so much on their intrinsic merits as on the arts employed by interested advocates.

Referring to the properties of the ideal soporific, Professor Cushny said that the drug must not be repugnant by its taste or odor. Voices had been heard of late years that in this respect investigators had been only too successful in their search, that the modern hypnotic had become so agreeable that it had tended to enslave the patient to a habit worse than the alcoholic one, and that safety lay only in the use of the less agreeable members of the group and those which betrayed their presence. The argument might be sound in individual cases at present, but a more reasonable view seemed to demand a closer control of the sale of these remedies.

As regarded veronal, cases of poisoning had occurred, but only from overwhelming doses, and these should not cause prejudice against its use in therapeutic quantities. Chloral and veronal had undergone a test extending over millions of cases, were reliable, easily taken, and were practically devoid of action outside the central nervous system. Professor Cushny placed them at the head of the list as proved. Paraldehyde suffered from its unpleasant taste and odor, and from its large dose, and it was not as certain in its action as the first two. On the other hand, it was much less likely to be taken habitually.

With the rise of the new specific soporifics, many of the old drugs used in sleeplessness had fallen into disuse. Cannabis

indica had been condemned as unreliable, though its purely soporific action deserved recognition, and it was probably safer than any in use at present. It seemed possible that in combination with some more constant remedy it might deserve some attention.

In the treatment of pain, progress had been slower than in that of sleeplessness. The chief advance in the last half century had been in the substitution of morphine for opium, and no improvement had been made in the natural alkaloid as yet. The other alkaloids of opium had not been sufficiently investigated in this relation, and it was possible that one of these, or a combination of morphine with one of the other alkaloids (narcophine), might prove to have advantages. The treatment of the symptom pain was one of the most urgent necessities of practice.

Dr. Robert Jones, Claybury, Essex, said that far too little was made of the spiritual part of education. At the asylum at Claybury he had had scores of patients who ought not to be there if they had had proper moral and mental training in early life. He had never seen a pure case of overwork in the asylum, but he had seen many cases of overwork coupled with anxiety, of anxious pupils, prompted by more anxious parents, and very anxious schoolmasters.

Although the period allowed for sleep in the public schools had been extended, there was still more required. For children under five years of age twelve hours should be given, and up to 15 years of age the period should be at least ten hours.

Discussing causes of sleeplessness, Dr. Jones said that often decayed teeth were overlooked. Astigmatism of the sight and adenoids were further instanced as causes of sleeplessness. These matters should all be attended to. Dr. Jones commended Turkish baths as an admirable remedy. In cases of acute delirious mania, he frequently used alcohol. As a pain reliever, alcohol, he thought, had of late years been underestimated. It certainly relieved pain in doses far smaller than to cause intoxication. If one was afraid of prescribing it in the form of ordinary beverages, it could always be disguised as a medicine, it was absolutely incumbent on medical officers who dealt with

early cases of insanity or mental breakdown, to produce sleep at all costs.

Professor Bradbury, Cambridge, expressed the opinion that people slept longer than they imagined, and a great many people slept and did not know. The kind of sleep was an important matter. Some people would sleep soundly for three or four hours and not want any more, not needing as much as others required.

The more he saw of the action of veronal the more he was pleased with it if it was given in proper doses. A good dose of whiskey and water would make a man sleep well, especially if he was an abstainer. That had not the disadvantage of paraldehyde. (Laughter.)

Sir Lauder Brunton, Bt. (presiding), said that the oldest writer on pharmacology was Solomon, who more than 2,000 years ago recommended as an anesthesia for both physical and mental pain the use of alcohol. The sentence Solomon wrote was: "The drunkard says, 'They have beaten me and I feel it not. I will seek it yet again.'" That was physical pain; the man did not feel the beating. For mental anesthesia Solomon's direction was: "Give wine to him that is of a heavy heart, and strong drink to him that is ready to perish that he may drink and forget his misery." That was mental anesthesia. So they might say that Solomon long ago was working very much on the lines of modern pharmacology.

Use of Anesthetics.

Considerable interest was shown in the section devoted to anesthesia, which met under the presidency of Dr. Dudley Buxton. Various methods of applying anesthetics were discussed.

Professor Burkhardt (Berlin) introduced the subject of intravenous application. Patients suffering from heart trouble and troubles of the circulation were not suitable, he said, for the intravenous method. It was advantageous for operations on the head and neck, and for those who had lost much blood. The intravenous method had the special advantage that the patient did not experience the unpleasant feeling at the beginning of

the application, and regained consciousness more quickly without headache or sickness.

Dr. Z. Mennell, anesthetist to St. Thomas' Hospital, read a paper on the same subject, with special reference to the use of hedonal in intracranial surgery. During 1912, he said, this method was used extensively at St. Thomas' Hospital for a great number of serious cases. The experience thus gained had led him to restrict its use to certain types of cases and to certain operations.

He did not recommend the use of hedonal for operations in connection with the air passage or in cases with high blood pressure. It was useful, however, for operations about the neck, for one reason because the anesthetist was removed from the site of operation; but its greatest value was in intracranial operations. He had now administered it in 85 of these operations, and had no hesitation in saying that it was by far the safest and most convenient anesthetic for the purpose.

Dr. S. J. Meltzer, of the Rockefeller Institute, New York, described another method of inducing anesthesia by intratracheal insufflation, which, he said, consisted of blowing air through a tube that had been introduced into the larynx and deep into the trachea. Prior to its entry into the trachea the tube of air might pass through a bottle containing ether. In that way the vapor was carried to the lungs. This method had now been tried on human subjects in more than 1,500 operations.

Infant Mortality.

"Infant Mortality in the First Four Weeks of Life" formed the topic for consideration at a joint sitting of three sections of the congress, namely, Hygiene and Preventive Medicine, Obstetrics and Gynecology, and Diseases of Children. An audience large enough to fill the Jehangir Hall of the University of London testified to the interest taken in the subject.

Dr. Arthur Newsholme, in a brief introductory address from the chair, said that in the returns of the Local Government Board the question of mortality during the first month of life had been carefully studied from the statistical point of view. One outstanding result, so far as statistics were concerned, was

that there was an enormous variation in the death-rate per 1,000 births in various parts of the country; this variation occurred in a very erratic manner, which could not be satisfactorily explained at present by variations in the industrial occupations of women or any similar factor. At one end of the scale they had towns with rates of 61, 57 and 55 per 1,000, and at the other end were places, also urban in character, where the rate was just about one-half of those already referred to.

Sir Francis Champneys, London, expressed the hope that these discussions would prove the beginning of better things in this country, for, unfortunately, they had not done much more in England than begin to consider the subject from the state point of view. They ought to try and make it fashionable for mothers to nurse their infants. (Cheers.) His experience was that all mothers who were in what they would call good society were not as bad as they were made out to be. He had known many mothers leading an active life in good society who nursed their children regularly. Sometimes it was the husbands who prevented their wives from nursing their children, from a desire to take them out into society; but if the wife was a wise woman she would go out with her husband and nurse her child as well.

A very common mistake made by nurses acting under the supervision of doctors was to begin feeding a child with milk from the time of its birth. He was convinced that many infant lives were lost through starting to feed the child with cow's milk as soon as it was born. Many nurses seemed afraid to give a child water to drink, assuming that when it cried it was sure to be hungry, whereas in reality it was, perhaps, suffering from a plethora of milk. They might as well give beefsteak to a man suffering from indigestion. (Laughter.) In this country they were starting schools for mothers. That was a most important thing. He had no doubt that the state might spend money very economically in teaching its mothers how to nurse their children. Money spent to that end would be repaid fourfold.

THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS

The fourteenth annual Convention of the Canadian Association for the Prevention of Tuberculosis will meet in Halifax, N.S., on the 13th and 14th of July. As this follows the medical meetings in St. John, it is particularly desired that as many medical men as possible will attend.

DR. S. WEIR MITCHELL DIES IN PHILADELPHIA

Dr. S. Weir Mitchell, noted author and physician, died at his home in Philadelphia, on January 4th. Death was due to influenza, the seriousness of which was accentuated by his advanced age. He was in his eighty-fifth year. Funeral services were held on Tuesday, January 6th.

Dr. Mitchell's fame both as a physician and author was international, although he probably was more widely known as a writer of fiction. His last book appeared a few months ago under the title of "Westways." A year ago he published "John Sherwood, Ironmaster," and among his other works of fiction were: "Hugh Wynne, Free Quaker," "The Adventures of Francois," "Francois Billon, "Characteristics," "Francis Drake," "A Madeira Party," and "Dr. North and His Friends."

Dr. Mitchell was noted as a neurologist, and his medical works largely were on subjects of nervous diseases. He was given honorary degrees by two foreign universities, the University of Bologna and the University of Toronto, while the degree of LL.D. was bestowed upon him by Harvard, Princeton, and other institutions. He held membership in societies in many parts of the world, including the French Academy of Medicine, the British Medical Society, the Royal Society of England, American Neurological Association, and many others.

Selected Articles

SOME ABNORMALITIES IN BREAST MILK AND THEIR TREATMENT

By Hugh H. Riddle, M.D., Cantab.

A constant low fat percentage or a decrease in amount in the nursing mother's milk has generally been considered an unanswerable argument in favor of substituting artificial feeding for Nature's own method, *i.e.*, breast feeding.

However convinced the physician may be of the infinite superiority of breast feeding over bottle feeding as a general rule, a sudden cutting off of the supply or a failure of the infant to make a proper weekly gain in weight in practice usually forces him to the conclusion that, under the special circumstances, a change to bottle feeds (to which the requisite amount of additional cream can be readily added) is not only justifiable but absolutely imperative.

Where a gradual decrease in the supply of mother's milk takes place such measures as increasing the fluids in her diet, ordering more rest, etc., sometimes are efficient. Where there is complete cessation of the flow, however, something more radical is needed to stimulate the glandular structures into taking up again their interrupted functional activities.

Where the milk is normal in amount but deficient in fats there are two classic alternatives to resorting to bottle feeding: (1) increasing the nitrogenous elements in the mother's diet while cutting down her exercise, and (2) giving spoonfuls of cow's cream to the infant after or immediately previous to each breast feed.

In actual practice both these alternatives frequently fail to produce the desired effect. The commonest result of the "stuffing" treatment of the mother is a digestive upset, which is frequently the end of all attempts at nursing her baby, while the spoon feeds with cream often lead to undue sickness in the

infant, with the appearance of curds and numerous small fat particles in the stools.

Tables I. and II. below give the results of a series of experiments carried out in the past six months at the Queen Charlotte's Hospital with a preparation known as Lactagol, which is claimed to act as a direct galactogogue, increasing both the amount of milk and the fat ratio.

To Dr. Arthur Stabb, physician to Queen Charlotte's, I am indebted for the facilities allowed me for observing in the wards a number of his own patients under lactagol and for recourse to his case notes. In the series of observations on out-patients I have to thank Dr. J. B. Banister for his invaluable assistance in carrying out the analyses in the Queen Charlotte's laboratory.

Lactagol is a dry extract of cotton seed containing the active constituents of the seed in a concentrated form. For increasing the amount of milk secreted or raising to the normal a deficient fat ratio it was given in teaspoonful doses in milk three times a day.

The subjects of the first experiment (Table I.) were taken in sequence from the in-patients at Queen Charlotte's, the only common characteristic being a low fat ratio. The analyses were made in the Queen Charlotte's Pathological Laboratories:

TABLE I.

Case No.	Date of 1st Analysis.	Fat p.c.	Time on Lactagol.	Fat p.c. at 2nd Analy.	Fat Increase.
1	4th day	1.8	7 days	2.8	1.0
2	4th "	1.6	7 "	3.0	1.4
3	5th "	1.8	7 "	2.8	1.0
4	5th "	2.4	7 "	3.4	1.0
5	5th "	2.6	7 "	3.6	1.0
6	5th "	2.0	7 "	3.8	1.8
7	5th "	2.2	10 "	2.6	.4
8	5th "	2.2	5 "	3.0	.8
9	5th "	1.9	7 "	3.4	1.5
10	5th "	2.2	7 "	3.0	.8
11	5th "	2.8	7 "	3.6	.8

Carter and Richardson in 94 samples of breast milk examined found an average of 3.07 per cent. of fat in the early

months of lactation. The average for these 11 cases after the lactagol is 3.18 per cent.

The second table shows the results when the lactagol was given not at the beginning of the lactation, but at anything from two to four weeks after the birth of the infant. The mothers here, after samples of their milk were taken for preliminary analysis, were given supplies of lactagol to take at their homes. After the week's supply had been used up they returned to the hospital for the second analysis of the milk:—

TABLE II.

Case No.	Date of 1st Analysis.	Fat p.c.	Time on Lactagol.	Fat p.c. at 2nd Analy.	Fat Increase.
12	21st day	2.8	7 days	2.8	—
13	24th "	3.2	7 "	3.4	.2
14	19th "	2.4	7 "	3.6	1.2
15	28th "	3.6	7 "	3.6	—
16	15th "	2.8	7 "	3.8	1.0
17	18th "	3.6	7 "	4.0	.4
18	10th "	3.0	7 "	3.8	.8
19	14th "	3.2	7 "	3.0	.2
20	14th "	1.8	7 "	3.2	1.4
21	13th "	2.0	7 "	3.6	1.6
22	12th "	2.2	7 "	3.8	1.6

In those cases, such as numbers 13 and 15, in which the fat percentage was about normal (3.2 and 3.6, respectively) at the start of the taking of the lactagol the increase was slight or none at all. On the other hand, those mothers whose milk showed a serious deficiency in fat (as, for example, Nos. 20, 21 and 22) showed a marked rise in the fat ratio after the week's taking. The average fat percentage of the milk of these 11 cases (which were not selected, but were the whole number who could be induced conscientiously to carry out the treatment and to report themselves for analysis) was, at the finish of the week's course of lactagol, something over 3.5, against Carter and Richardson's average of 3.07. In addition to the above series of trials on the twenty-two cases taken in sequence, lactagol was also given in a number of special cases both in private practice and at Queen Charlotte's, in which the

milk was either deficient in quantity or patently poor in quality as shown both by analyses and by the failure of the infant properly to gain weight.

Case 1 (private), Mrs. E. S., primipara, æt. 22, twin girls, premature (7½ months). Milk secretion began on fourth day. Normal in amount on sixth. On seventh began to lessen. On ninth was unable to get even a half-ounce of milk with breast-pump for analysis. Babies put on bottles plus breast feeds every two hours. On tenth day one ounce milk obtained by breast-pump. Analysis showed 1.4 per cent. of fat. Mother put on lactagol same evening. By next evening (11th day) after four doses of lactagol breasts full and milk oozing. Each infant satisfied with two hour breast feeds from then on till time of writing (6th week). Second analysis on nineteenth day, after ten days of lactagol, showed fat percentage of 3.6.

Case 2 (private), primipara, æt. 26, premature infant, eighth month, mother an alcoholic, wife of an inn-keeper. Milk normal in quality and amount until twenty-first day, when it suddenly ceased. Cessation of milk roughly coincided with the mother's return to her duties behind the bar. Infant immediately put on bottle. As the infant failed to thrive on artificial feeding, the mother on the fourth day after cessation of her milk was put on lactagol. After the third dose the milk reappeared, and, on the third day of taking, the bottles were given up entirely. The infant was breast fed exclusively from then on until the eighth month. The lactagol was taken for periods of two or three weeks with fortnight intermissions from the second to the seventh month.

Case III. (Queen Charlotte's), I.C., æt. 25, primipara. This case instances well the rapid action of lactagol in cases where from the start the milk has been deficient in quantity. The infant had a harelip, utterly preventing suckling. From the start the milk has been drawn off with a breast-pump.

On the fourth day attempts were made by the nurse at two-hour intervals to draw off milk, but not more than three or four drachms could be obtained. On the fifth day, the flow not improving, the patient was placed on lactagol. On the sixth day and from then on until discharge the nurse had no difficulty in drawing off from an ounce and a half to two ounces at each feeding time. A special feature of interest here was that

the drying up of the milk, which not infrequently follows when the breast-pump must be continuously used instead of natural suckling, apparently had no effect in curtailing the flow.

Case IV. (Queen Charlotte's), E.F., æt. 36, twins. This woman, a healthy multipara, had had ten children previously. The first six she had had no difficulty in nursing to full nine months. The next four had been each nursed for three weeks or a month, after which bottle feeding had to be resorted to. The twins weighed, respectively, 5 lbs. 12½ ozs. and 6 lbs. 3 ozs. at birth. After the normal loss in weight occurring in the first three days the small quantity of milk observable in the breasts on the fourth day and fifth day suggested the advisability of giving lactagol. The patient was ordered a teaspoonful three times a day. On the seventh day both infants had regained their birth weight, and from thence on kept up a steady gain.

Instead of following the ordinary procedure of alternating breast feeding with bottle feeding, the mother, for the three weeks she was in the hospital, was able to give each infant the breast every two hours without any apparent strain on her own system, and with most beneficial results to the two infants.

Case A. G., æt. 31, primipara. Cesarean section. Here the lactagol was given as a precaution against any scarcity of milk which might result from the shock of the abnormal method of birth, and because of the relatively greater value of what will probably prove to be the mother's only child. An abnormal loss of weight occurring the first three days (8 ozs.) also suggested the use of the lactagol. A mixture of one part cream to three parts water and two or three bottles a day were also given in addition to the breast feeding. The lactagol was begun on the fourth day.

	Weight.			Weight.	
Day.	lbs.	ozs.	Day.	lbs.	ozs.
1.....	7	4	8.....	7	4
2.....	7	1	9.....	7	6
3.....	6	12	10.....	7	7
4.....	6	13	11.....	7	9
5.....	6	15	12.....	7	11
6.....	7	0	13.....	7	12
7.....	7	2	14.....	7	13

On the mother's discharge on the twenty-third day the infant weighed 8 lbs. 10 ozs.

Ethel Pigeon, æt. 34, fourth child. The mother had not been able to nurse any of her previous children on account of lack of milk. After the birth of the present baby there were no signs whatever of milk on the fifth day. Lactagol was given in teaspoonful doses in milk and within twenty-four hours the secretion began, the mother nursing the baby comfortably at the time of discharge from hospital. On examination the breasts were well-rounded and firm, large but not fat, with well-formed nipples, in short the typical healthy breast of the normal nursing mother.—*Medical Press.*

THE HODGKINS PRIZE OF $1,500.00 GOES TO DR. GUY HINSDALE, OF HOT SPRINGS, VA., AND DR. S. ADOLPHUS KNOPF, OF NEW YORK CITY

"The Relation of Atmospheric Air to Tuberculosis" is the Theme of the Prize Essay.

Dr. Guy Hinsdale of Hot Springs, Virginia, and Dr. S. Adolphus Knopf of New York City have just been notified that they have been the recipients of the Hodgkins Prize of the Smithsonian Institution. Some surprise has been expressed in medical and lay circles that the award for these essays has only now been decided upon, when the memoirs for competition were submitted five years ago at the occasion of the tuberculosis congress at Washington in 1908. The explanation is to be found in the fact that the competition was open to the entire scientific world and that many memoirs had been submitted in various languages—English, French, German, Spanish and Italian. In justice to all competitors every one of these works, some comprising as many as 750 printed pages, had to be read carefully and passed upon. The jury which finally decided that the prize of $1,500 should be equally divided between Drs. Hinsdale and Knopf, comprised Professor William H. Welch of Johns Hopkins University, Chairman; Prof. Hermann M. Biggs, New York City; Prof. W. M. Davis, Cambridge, Mass.; Prof. G. Dock, Washington University Medical School, St. Louis, Mo.; Dr. Simon Flexner of the Rockefeller Institute for Medical Research, New York City; Surgeon-General Geo. M. Sternberg, U. S. Army (retired); and Dr. John S. Fulton, the Secretary-General of the International Congress on Tuberculosis, Washington, D.C.

Dr. Hinsdale is Secretary of the American Climatological Association and Dr. Knopf is Professor of Medicine in charge of the Tuberculosis Department of the New York Post-Graduate Medical School.

It was in October, 1891, that Thomas George Hodgkins, Esquire, of Setauket, N.Y., made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric

air in connection with the welfare of man." In furtherance of the donor's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications. In connection with the Tuberculosis Congress in 1908, the prize was offered for the best treatise on "The Relation of Atmospheric Air to Tuberculosis," and the above-mentioned physicians were the recipients of the prize this year. The former winners of the Hodgkins prize were Baron Rayleigh and Sir William Ramsay for their discovery of Argon, an element in the atmosphere heretofore unknown.

The Smithsonian Institution will publish Dr. Hinsdale's and Dr. Knopf's papers in series of "Smithsonian Miscellaneous Collections." The usual edition is 1,500 copies. About 1,100 of these are distributed to the principal libraries and institutions in this country and abroad. Of the 400 remaining copies, 50 are usually supplied to the author, or sent out by the Institution at his request, and the others are supplied to specialists on their request, or sold to the general public at cost. In view of an expected unusual demand for a work of this character, it is probable that the edition will be somewhat increased in this case.

The Physician's Library

Studies in the Psychology of Sex. Vol. VI. Sex in Relation to Society. By Havelock Ellis. Philadelphia: F. A. Davis Co., publishers, 1913. Price, $3.00 net.

The author of this volume is so well known that he needs no introduction. This is the last volume of a series of six, and is perhaps the best. In the preceding volumes the author has dealt with the sexual impulse in relation to its object, whereas he now takes up its relationship to the community. The subject is one that must be written up only by one who has made a careful study of psychology and knows how to express himself, and we think that the publishers are to be complimented on restricting the sale of such a book to the learned professions. The author very properly lays stress on the influence of Christianity in moulding sexual ideals and establishing sexual institutions. The volume is one that will keenly interest students of social hygiene.

Love and the Universe, The Immortals and Other Poems. By Albert D. Watson, with introduction by Katherine Hale. Toronto: The Macmillan Company of Canada, Limited, at St. Martin's House, MCMXIII.

One of the questions often debated is whether a man can possess at the same time both the qualities of a good physician and of a *litterateur.*

The answer must be individualistic. The majority of us are men of one talent only—and success means absolute concentration upon our profession. But there are among us the men of many talents, and that the question may be answered in the affirmative is shown by the mention of such names as John Brown, Oliver Wendell Holmes, Weir Mitchell, Paget—men whose professional standing is unquestioned, yet whose names are associated with genuine and outstanding literature.

Dr. A. D. Watson, of Toronto, has been known for many years as an active physician in general practice, with avocations of star study and verse writing. But it is only with the appearance of the present volume that the depth and breadth of his gifts become apparent. The philosophic, religious, and scientific sides of his nature reveal themselves in these verses. The wide range of his thought and the facility and beauty of his phrasing compels wonder and appreciation. His lyrical numbers possess warmth, beauty, and in many instances a simplicity worthy of Wordsworth, as in the little plaint "Weary," as in the swinging buoyancy and confidence of "The Voyage."

His poems, "The Immortals," are studies that show not only a fine insight into the lives and characters of these men, but the plane of his own philosophy of life, as evidenced in "Goethe":

> "Let not the fickle spirit of the times
> Warp the true judgment of experience,
> Suffer thou not the noises of the day
> To drown the substance of thine own ideal."

In his prose preface to "The Immortals," an unusually fine bit of writing, the author says, "All men are essentially noble. Constitutionally there are no common people," and it is to the essentially noble in his readers that the book makes appeal. As Katherine Hale says in her foreword, "Dr. Watson touches the cosmic note, without which no voice may carry."

The writer is evidently one of those rare men—a busy every-day physician with a splendid vision, and philosophy that is an antidote for the materialistic tendency the profession too often assumes.

The Bradshaw Lecture on the Biology of Tumors. Delivered at the Royal College of Surgeons of England on Thursday, December 5th, 1912. By C. Mansell Moullin, M.A., M.D. Oxon., F.R.C.S.; Consulting Surgeon to the London Hospital; member of the Council, and recently Vice-President of the Royal College of Surgeons of England; formerly Fellow of Pembroke College and Radcliffe Travelling Fellow, Oxford, and Examiner in Surgery at the Uni-

versities of Oxford and Cambridge. Published by request of the Council of the Royal College of Surgeons of England. London: H. K. Lewis, 136 Gower Street, W.C., 1913.

This small book of but thirty-nine pages embodies the Bradshaw lecture on the Biology of Tumors, and was published by the author at the request of the Council of the Royal College of Physicians and Surgeons. The author finds no proof that tumors are due to parasites, they originate as buds from tissues, which continue to grow because the force that restrains their inborn power of growth has ceased to act. The book is very interesting as well as instructive, and will repay anyone the short time one spends in its perusal. P. G. G.

Eye, Ear, Nose, Throat. Practical Medicine Series. Vol. III. 1913. Authors: Wood, Andrews, Head.

This book contains 370 pages, and gives, succinctly, the progress of the year in all matters pertaining to eye, ear, nose and throat. In each section there is to be found, in very accessible form, many new facts and much knowledge of great value to both specialists, and also to the general practitioner. Price of series of ten volumes is $10 and the book itself is $1.50. It is issued by The Year Book Publishers, 327 La Salle Street, Chicago. J. H.

Tumors of the Jaws. By Charles L. Scudder, M.D., Surgeon to the Massachusetts General Hospital. Octavo of 391 pages, with 353 illustrations, 6 in colors. Philadelphia and London: W. B. Saunders Company, 1912. Toronto: J. F. Hartz Co. Cloth, $6.00 net; half morocco, $7.50 net.

A study of the cases of tumor of the jaws treated at the Massachusetts General Hospital within the last twenty years is the basis upon which this monograph is founded.

No other study of the subject as complete and as satisfactory as the present one is to be found in American surgical literature.

In making this statement we must not lose sight of the fact that Bloodgood and others have contributed valuable papers

upon the pathological aspects of such growths, and that many surgeons have assisted in perfecting the operative technic now most approved.

Christopher Heath's book was of great value in its day, and may still be consulted with advantage.

For those who read German, the monograph by Perthes, of Leipzig, published in 1907, will be accorded a position in advance of any other.

Dr. Scudder, recognizing that no one physician meets with an extended series of new growths of the jaws, has undertaken a work intended to assist those who have the care of such cases in reaching early and accurate diagnosis and in determining the line of treatment most likely to prove helpful.

Early malignant disease has a low operative mortality, while late operations have an exceedingly high death rate, hence the importance of avoiding delay in diagnosis.

Accurate differentiation with regard to the nature of the growth is next in importance to its early and complete removal. With a skilled pathologist to freeze, section, stain, examine and report upon a part removed in the early stage of an operation, the surgeon of to-day has an advantage unknown to those who only a few years ago had to deal with tumors of the jaw. But since not every hospital has facilities for such work or men to use them if provided, the assistance of monographs like the one before us cannot be over-estimated.

Its clear and beautiful illustrations, largely from photographs, help out the text in a satisfactory way.

Dr. Scudder's work on Fractures is known and appreciated everywhere. His discussion of maxillary neoplasms is equally creditable. N. A. P.

Genito-Urinary Diseases and Syphilis. By Edgar G. Ballenger, M.D., Adjunct Clinical Professor of Genito-Urinary Diseases, Atlanta Medical College; Editor *Journal-Record of Medicine*; Urologist to Wesley Memorial Hospital; Genito-Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to Hospital for Nervous Diseases, etc., Atlanta, Ga., assisted by Omar F. Elder, M.D. The Wassermann Reaction by Edgar Paullin, M.D. Second edition revised.

527 pages with 109 illustrations and 5 colored plates. Price, $5.00 net. E. W. Allen & Co., Atlanta, Ga.

This edition has been fully revised and the latest treatment of venereal diseases fully described. Since the first edition was issued there have been many changes in treatment, especially in gonorrhea, and the Wassermann test has proven of great value as a diagnostic aid in syphilis. Sealing the meatus urinarius in the treatment of gonorrhea after injecting a five per cent. solution of argyrol appears good treatment, and is easily carried out. A good work, and should appeal to both physician and student. A. J. H.

"The Principles of Hygiene." By D. H. Bergey, A.M., M.D. Fourth Edition, 1912. W. B. Saunders & Co.: Philadelphia and London.

This, the third revision of this work since 1904, is a volume of over five hundred pages. It contains in concise form all that is new in respect to the various topics of hygiene at the present time. The volume is well printed upon a good paper; the binding is strong and durable. The various headings are displayed so as to catch the eye. The illustrations, some sixty-three in number, are clear and well selected. There is a chapter upon United States quarantine law, and one upon Vital Statistics. The index is very full. Altogether it is a satisfactory text book for the student of sanitary science.

J. W. S. M'C.

Clinical Electrocardiography. By Thomas Lewis, M.D., D.Sc., F.R.C.P., Assistant Physician and Lecturer on Cardiac Pathology, University College Hospital; Physician to Out-Patients, City of London Hospital. London: Shaw & Sons. 1913.

This small book of 120 pages by one of the English authorities and pioneers in clinical electrocardiography is intended as a supplement to two other treatises by the same author, entitled "Mechanism of the Heart Beat" and "Clinical Disorders of the Heart Beat." Although electrocardiography is such a new method for the investigation of heart action, it has already

advanced to undreamt heights, and no hospital in which an attempt is made to investigate circulatory diseases can be considered to be complete without the possession of an electrocardiograph. Dr. Lewis' work attempts to describe the electrocardiograph and the various forms of tracings obtained by photographing the string which vibrates in response to the current generated by the heart beats. To those who have had experience with the instrument the book should prove of interest and value; but to those not familiar with the instrument or with the new terminology introduced as a result of discoveries along a new line of investigation, the book is likely to be disappointing. The descriptions of the various heart disorders and of the resulting electrocardiograms are very brief and in consequence not always clear. The printing of the text and the reproductions of about one hundred electrocardiograms of great variety are excellent.

The Skiagraphy of the Accessory Nasal Sinuses. By A. Logan Turner, M.D., F.R.C.S.E., F.R.S.E., Surgeon to the Ear and Throat Department, the Royal Infirmary, Edinburgh; Lecturer on Diseases of the Ear, Nose and Throat, University of Edinburgh, and W. G. Porter, M.B., B.Sc., F.R.C.S.E.; Surgeon to the Eye, Ear and Throat Infirmary, Edinburgh. Edinburgh and London: William Green & Sons, publishers.

The appearance of any work by Logan Turner is bound to excite interest. The former publications of this author, owing to their high order, have demanded of this book that it be greatly original and highly scientific. Turner has attained in this book what was expected of him. The authors do not permit the X-ray plate to positively make either the diagnosis or alone determine the procedure best to follow. It is of great help along with other signs, but only so if carefully taken and correctly interpreted. The technique of taking X-ray pictures is often little understood. There will be no excuse for this now that such an excellent chapter exists. This book takes up very well the study of the normal sinuses, and especially excellent is that part dealing with the ethnoid. P. G. G.

Book on the Physician Himself. Twelfth and Final Edition. By D. W. Cathill, M.D. Philadelphia: F. A. Davis Co., Publishers. $2.50 net. Pp. 395, with index.

This familiar book must be once more highly commended. With little pretensions on literature, it has throughout a homely, hearty kindliness, a sober, common sense, a loftiness of ethical standard, and a wholesome shrewdness withal, which must keep it still as welcome, and as valuable, particularly to the unsophisticated beginner in practice, as it has ever been in its long career of usefulness. It is refreshing reading, particularly if bitter experience has tended to harden a man into threatening misanthropy against either the public or some neighbors in his own profession. Very few are the practitioners of medicine whose professional conscience would not be burnished up and quickened by the reading of it.

The index is a mine of wealth, though for such a book a particularly difficult one to compile. J. T. F.

Obstetrics. Volume VII of the Practical Medical Series. Edited by Joseph B. De Lee, A.M., M.D., Northwestern University. Chicago: The Year Book Publishers. 1913. Price, $1.35.

This little book of 220 pages is one of a series of ten, issued at monthly intervals and covering the entire field of medicine and surgery. It is intended primarily for the general practitioner, and reviews concisely the work done in obstetrics during the past year. Of special interest are the abstracts on the successful treatment of syphilis during pregnancy, on the use and abuse of pituitary extract, and on the work of Abderhalden concerning the sero-diagnosis of pregnancy. Considerable space is also given to the toxemias and their treatment, to the occurrence and cause of thrombosis, and to operative interference in labor. The editor lays stress on the fact that, in the new born, fractures of the skull may be present after normal labor, and he draws attention to the necessity of early diagnosis of intracranial hemorrhage. While this volume is in no wise to be looked on as a text-book, it would nevertheless be a most acceptable addition to the library of every physician. J. G. G.

International Clinics. Vol. 6. 23rd Series, 1913. Messrs. J. B. Lippincott Co.

The last volume of this regularly occurring series is fully abreast of its fellows; and while there are some articles which are of academic, rather than of practical interest, articles which will not appeal to the man on the street (in the medical and surgical sense), there are others most vitally interesting and instructive. Of these may be named Warthin's article, "Traumatic Lipemia and Fatty Embolism"; also Lloyd's article, "Syphilis of the Pons, Medulla and upper Spinal Cord."

The clinics supply a permanent record of much of the abiding work done by the profession. B. E. M.

Merck's Annual Report on Pharmaceutical Chemistry and Therapeutics, 1912, Volume XXVI: E. Merck, Chemical Works, Darmstadt, 1913.

A timely annual publication for pharmacists who wish to become acquainted with the more recent acquisitions in pharmaceutical chemistry, and for physicians who may wish to apply them in practice. Any person who sends his address and encloses fifteen cents to cover the cost of mailing, will receive a copy of the book from Messrs. Merck & Company, 26-28 St. Sulpice Street, Montreal, Que.

The Practitioner's Visiting List, 1914. Thirty patients per week. Philadelphia and New York: Lea & Febiger.

Contains, amongst other things, articles on Dentition, Obstetric Dates, Thermometric Scales, Weights and Measures, Metric System, Comparative Scales, Examination of Urine, Important Incompatibles, Artificial Respiration, Eruptive Fevers, Poisons, Table of Doses, etc., etc., together with a most excellent Therapeutic Reminder and Guide to Ligation of Arteries.

Handsomely got up, full of useful information, perfectly arranged as a record of a busy doctor's every-day work, this pocket list takes the first place. Of the greatest value to every practitioner. A. J. J.

Applied Bacteriology for Nurses. By Charles F. Bolduan, M.D., Assistant to the General Medical Officer, Department of Health, City of New York; and Marie Grund, M.D., Bacteriologist, Research Laboratory, Department of Health, City of New York. Illustrated. Philadelphia and London: W. B. Saunders Company, 1913.

A well-arranged text-book for nurses, dealing in a clear and concise form with the subject of bacteriology, and yet refrains from going so deeply into the subject that a nurse would be unable to read it in the limited time at her disposal or more minutely than she would have the training to appreciate. Such a text-book should undoubtedly be used wherever nurses are being trained.

The American Journal of Clinical Medicine recently celebrated its twenty-first anniversary. The following is, in part, the programme for 1914: The Modern Treatment of Syphilis, by Dr. G. Frank Lydston, Chicago; The Treatment of Impotence in the Male, by Dr. G. Frank Lydston, Chicago; The Management of Venereal and Sexual Diseases, by Dr. William J. Robinson, New York City; Some Precise Methods of Diagnosis and Treatment, by Dr. B. G. R. Williams, Paris, Illinois; A Home-made Extension Apparatus for Treating Fractures, by Dr. Benjamin H. Breakstone, Chicago; Bone-Plating Under Local Anesthesia, by Dr. Benjamin H. Breakstone, Chicago; Bedside Irrigation of the Bladder by Dr. Benjamin H. Breakstone, Chicago; Amputation of the Breast Under Local Anesthesia, by Dr. Benjamin H. Breakstone, Chicago; Common Diseases of the Skin and How to Treat Them, by Dr. E. A. Fischkin, Chicago; Making Good in Emergencies, by Dr. George H. Candler, Chicago; Making Good in Chronic Diseases, by Dr. George H. Candler, Chicago; Every-Day Surgery in General Practice, by Dr. Ralph St. J. Perry, Farmington, Minnesota; The Surgery of Chronic Conditions, by Dr. Ralph St. J. Perry, Farmington, Minnesota; How Shall the Country Doctor Equip Himself to do Surgery, by Dr. Ralph St. J. Perry, Farmington, Minnesota; Every-Day Obstetrics for the General Practitioner, by Dr. William Ritten-

house, Chicago; Spectacles: Simple Instructions in Refraction Work for the General Practitioner, by Dr. Thomes G. Atkinson, Chicago; Plans for a Model Home for a Doctor in the Country, by Arthur H. Busch, Chicago; Plans for a Model Home for a Doctor in the City, by Arthur H. Busch, Chicago; Plans for a Doctor's Model Office, by Arthur H. Busch, Chicago; Plans for a Model Ten-Room Hospital, by Arthur H. Busch, Chicago; Keeping Accounts and Making Collections, by Dr. Henry B. Hollen, Chicago. We heartily congratulate our friends, the editors of *Clinical Medicine,* on the splendid programme as outlined.

A Reference Hand-Book for Nurses. By Amanda K. Beck, Graduate of the Illinois Training School for Nurses. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1913.

This second edition is even more comprehensive than was the first, and is almost indispensable to a nurse doing private duty. It will take up little room in a nurse's grip and will oftentimes prove the friend in need when a nurse is entirely left to her own resources.

Handbook of Physiology, by W. D. Halliburton, M.D., LL.D., F.R.C.P., F.R.S., Professor of Physiology, King's College, London. Eleventh Edition, with nearly 600 illustrations in the text, some of them colored. P. Blakiston's Son & Co., Philadelphia.

This work ranks with Gray's Anatomy as a guide in its special domain to succeeding generations of medical students. To the student of a quarter of a century ago, it is refreshing to note that the same text-book in Physiology of that date does duty yet, for Haliburton's Physiology in the 11th edition is the 25th edition of Kirke's Physiology. While many of the chapters will furnish familiar reading and many of the illustrations are the same as at that period, reminding one that the old foundations have not entirely disappeared, yet each succeeding edition has been thoroughly revised and brought up to date by workers foremost in the field of Physiology. The present edi-

tion has chapters on the recent advancements in the physiology of the Heart, on Osmotic Phenomena, Ductless Glands, etc. The book is an excellent one for the practitioner with which to bring his knowledge up to date, as well as for the student to gain an insight into this field of work. The price, as formerly, is $3.00. H. B. A.

Elementary Bacteriology and Protozoology: the Microbiological Causes of the Infectious Diseases. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Price, cloth, $1.75, net. Philadelphia and New York: Lea & Febiger. 1912.

This work is designed as an elementary text-book of bacteriology and protozoology for nurses and for beginners. Without being technical, it gives a good idea of the nature of micro-organisms, and then discusses with more emphasis the ways in which bacteria pass from one individual to another, how they enter the body and act when once within, and their manner of exit. Such general information concerning the character of the disease process has been included as seemed necessary to clarify the nature of microbe action. Indeed, the subject-matter in many places is but elementary bacteriological pathology. In other words, the author has endeavored to show in the simplest manner how bacteria produce disease.

THE HISTORY OF MEDICINE

The old saying, "There is nothing new under the sun," is of interest when we review the history of medicine.

As a rule we refer to Hippocrates, 460 B.C., as the "Father of Medicine," yet the Egyptians consider Thoth and the Greeks Hermes originators of medicine one thousand years before Hippocrates. As early as 1700 B.C. pharmacy was practised in Egypt and Moses laid down the laws of public hygiene, while in 4000 B.C. the old Babylonian Tablets show words for the heart, liver, lungs, kidneys and other organs.—*When Did It Happen?* Published by Reed & Carnrick.

DIAGNOSTIC WALL CHART

The Palisade Manufacturing Co., of Yonkers, N.Y., recently mailed to every physician in Canada a copy of an exceedingly unique and clever piece of advertising matter, entitled "A Diagnostic Wall Chart." This is one of the best things this enterprising house has gotten out in years. It contains a fund of information, and any physician who has not already received a copy may do so "for the asking."

THE INJURED FINGER

One of the most human, artistic and appealing pictures we have seen is "The Injured Finger," published by the Surgery Publishing Company of New York.

This depicts a representative type of the present-day physician treating an injured finger of a street urchin, while his two pals are intently and sympathetically watching the operation.

We are sure that you would prize and your patients and friends would enjoy this beautiful reproduction, which is so much more natural, more appealing and more human and so different from most of the familiar office and library pictures depicting gruesome scenes.

Personals

Dr. Edmund Boyd, 142 Carlton Street, announces to the profession that he will confine his practice to the care of diseases of the throat, nose and ear.

Dr. A. M. Rosebrugh, Medical Officer of the Ontario Society for the Reformation of Inebriates, has removed his office and residence to No. 249 Huron St., a few doors north of College St., Toronto.

Dr. N. King Wilson, late Senior Resident Surgeon Throat Hospital, Golden Square, London, is now devoting his practice to diseases of the ear, nose and throat. 159 College Street, Toronto.

Dr. Goldwin Howland conducts an outdoor clinic for nervous diseases at the new Toronto General Hospital every Monday at 2 p.m.

Dr. Frederick W. Marlow, F. R. C. S., has been appointed Associate Professor of Gynecology in the Medical Faculty of Toronto University.

Dr. J. Gordon Gallie announces to the profession that he has commenced practice at 143 College Street, and that he is restricting his attention to obstetrics.

Dr. H. J. Hamilton was invited by H.R.H. The Duke of Connaught, K.C.B., to luncheon at the York Club, Toronto, on February 2nd. We are glad to note so delicate (and by the way so deserved) a compliment to the Academy of Medicine.

Correspondence

The Editor cannot hold himself responsible for any views expressed in this Department.

RADIUM

To the Editor, Canadian Journal of Medicine and Surgery.

Dear Sir,—I wish to draw attention to an editorial in the *Canadian Medical Association Journal* of February last, entitled "The New Quackery," in which those members of the profession using radium as a remedy for certain diseases are inferentially classed with quacks

Evidently the writer of this editorial is not conversant with modern medical literature. It is astonishing that a gentleman of the learning and ability of the editor of that journal should lend himself to the offering of a gratuitous insult to men just as sincere, just as honest and just as earnest for the advancement of medical science as most men. It is also an affront to the many practitioners who constantly refer their patients for radium treatment.

That radium has accomplished much that has been expected of it will be admitted by any fair-minded man. Have the X-rays, quinine or mercury accomplished all that was expected of them? Yet who will deny their utility in properly selected cases.

Does the editor of the *Journal* mean to say that such men as Professors Bumm and His, of Berlin; Professor Kronig, of Freiburg; Professor Doderlein, of Munich; Professor Riehl, of Vienna; Professor Bayet, of Brussels, and Doctors Wickham, Degrais, Barcat, Dominici, Pasteau and Foveau de Courmelles of Paris; Pinch, of the London Radium Institute; Knox, of the London Cancer Hospital; Sir Alfred Pearce-Gould and Sir F. Treves, of London; Dr. Dawson Turner, of Edinburgh, and in America, Dr. R. Abbe, of New York, and other acknowledged authorities on this continent, are quacks?

The editor of the *Journal* surely must know that the men of the highest standing in the profession are referring cases for radium treatment.

Perhaps the editor refers to the publicity which has been given to radium in the public press. Surely he must have noticed the publicity given to the prevention and cure of tuberculosis, of diphtheria, of typhoid fever and other scourges of humanity.

Times have changed, and it is the medical profession who have changed them by encouraging public discussion of the treatment of diseases. The public demands to know the why and wherefore in public as well as in private, and why should they not learn what is their business as well as ours? If a remedy has been found for some of the ills the flesh is heir to, what is to prevent the press, both medical and lay, from calling it by its name?

Yours truly,

AUTONITE.

DR. HAMILL, MEDICAL BROKER

THE old Janes Building, at the corner of King and Yonge Streets, has been razed to the ground to make way for another 20-story sky-scraper, and Dr. Hamill, Medical Broker, whose office has been therein for so many years, has been compelled to find new offices, which he has secured at 205 Yonge Street, Bank of Toronto Building, opposite Eaton's. His new telephone number is Main 3375. Hours 11 a.m. to 5 p.m. Residence phone, before and after office hours, is Hillcrest 359. Physicians desiring to buy or sell a medical practice should cut this out for ready reference, in case they wish to telephone the doctor at any time, as it will be some time before the new telephone book is issued. The doctor informs us that at no time during the 18 years that he has acted as medical broker has he had a more inviting list of practices to offer for sale than at the present time. Particulars of these will be sent free to any registered physician.

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Editorials

LECTURES AND LECTURERS

A WELL-COMPOSED, well-delivered lecture—a work of art—imparts pleasure to the hearers, owing to the nourishment it conveys to the mind, the recollections, grave or gay, it recalls, the subtle shocks it gives to the imagination. In fact, a satisfied state of mind, produced by the efforts of a capable lecturer, yields to many people the most grateful, the least fatiguing of pleasurable sensations. Mere excitation of a sense will not give unmixed satisfaction to any of us. Excitement of the sense of feeling, at first delightful, becomes, after prolonged repetition of the stimulus, rather painful. Staring at acres of fine canvases, without studying the artistic work of the painters, tires the retinæ and provokes unrest. A trip in June through the lavender fields at Hinchin, England, at first ravishing to the sense of smell, if persevered in for several days, induces satiety and may end in severe headache. Taste, a much exercised sense, endures hard usage more successfully than these other

senses, because, back of the mere tickling of the palate, there is an unremitting demand for food and drink. So much so, that taste feels keener rapture from the crunching of a crust, when hunger assails us, than it does from a dinner of many courses, if appetite be lacking.

Even musical strains repeated strenuously, for a considerable time, may provoke fatigue or bring on a fit of yawning. More especially does this remark hold true if intellectual pleasure is not evoked by the concert of sweet sounds. In a general way, a well-rendered piece of music appeals alike to a trained ear or an untrained one—but similarity in the effect produced by the music ends at the tympanum and disparity begins there. The trained ear promptly conveys the effect of a musical performance to the tribunal of a reasoning, classifying, criticising mind, which delights in exercising its gifts when they are employed on a congenial theme.

The untrained ear brings its sensations before a tribunal, where the judge recognizes his limitations, and dismisses the appeal; but to save his face pronounces the musical performance something "lovely."

Of what mental value is it to listen to Lohengrin if you do not understand German? Worse still, how disastrous is the effect on your hearing, if Heinrich Von Vogler, the king, and Lohengrin, the hero, sing in Italian, while Elsa, the heroine, and Orthrud, the witch, chant in German? If you are not a polyglot, you listen for four hours to unintelligible words and,

after the curtain drops, you ask yourself the meaning of the scenes represented. Your ears have been gratified with sweet sounds, with noble strains from a grand orchestra; but you have not understood the dialogue. You have been looking at acting, the purport of which does not reach you, or which you try to piece together, with no assurance that your guessing is right or wrong. How different your mental picture of Lohengrin would be if, aside from its merits as a musical composition, the words themselves of the opera had been sung by competent artists in the English tongue! Even a representation of Macbeth would produce a somewhat equivocal effect on our minds if Macbeth were to defy Macduff in Italian—if Lady Macbeth were to proclaim her grim determination, her undying remorse, in German.

And these remarks about plays bring us back to our sheep, which have wandered a little while we have been discoursing on pleasure or pain arising from the unaided exercise of a sense, and the inability of any sense to afford full pleasure if its function be not associated with the exercise of the intellect.

While we delight in hearing the accents of the mother tongue, wedded to noble thoughts in a lecture, how much of our anticipated pleasure is turned to pain if the speaker expresses himself in a low, conversational tone of voice; if his utterance lacks precision; if he speaks too rapidly, and neglects to make due pauses? A lecturer who limits himself to the utterance of 6,000 words in a hour, speaking at the rate of 100 words in a minute, is much more intelligible to

his audience than if he were to utter 9,600 words in the same period of time, at the rate of 160 words in a minute.

J. J. C.

MINING ACCIDENTS IN ONTARIO

THE report of Mr. E. T. Corkill, Chief Inspector of Mines, printed in the twenty-second Annual Report of the Bureau of Mines, 1913, by order of the Legislative Assembly of Ontario, contains several references to mining accidents, which will be of interest to our medical readers. The total number of serious accidents in the mines of Ontario, reported to the Bureau of Mines in 1912, was 238, resulting in 32 killed and 216 injured; of these injuries, 56 occurred below ground and 160 above. The fatal accidents took place in mines operated by nineteen different companies. At metallurgical works there were 128 accidents, which caused the deaths of 10 men and serious injuries to 122 others. The total number of accidents during the year 1912, at the various mines, works and quarries regulated by the Mining Act of Ontario, was 370, causing the deaths of 43 men and injuries to 341 men.

The following classification distributes the responsibility for the cause of the fatalities at the mines:

(1) Fatalities due to danger inherent in the work itself 10, or 23.3%
(2) Fatalities arising out of defects in the mine workings 8, or 18.6%

(3) Fatalities due to faults of fellow-workmen 1, or 2.3%
(4) Fatalities due to the fault of injured persons 23, or 53.5%
(5) Fatalities unclassifiable 1, or 2.3%

In 1912 there were 13,108 persons employed in the producing mines of Ontario; 2,000 persons in non-producing mines (estimated); total persons employed 15,108. Of these 43 persons were killed, giving a ratio of 2.84 of fatal accidents per 1,000 employees. The record shows that 32 deaths, 74.4 per cent. of the fatalities, were due to the fault or neglect of the workmen, or the managers of the work, and were preventable accidents. The other 11 fatalities, 25.6 per cent., were due to danger inherent in the work itself.

There was a decrease in the number of accidents from explosives in 1912 compared with 1911 and preceding years, there being but 7 fatalities of this nature as against 16 in 1911, and 10 in 1910. This result shows that greater care is being taken in the handling of explosives, and also stricter supervision by the men in charge of the mines. The introduction of low-freezing explosives may also be a factor in the reduced accident rate from this cause.

The poisonous gases produced by the discharge of explosives in mines are mainly carbon dioxide, carbon monoxide, and nitrous fumes. Of the 7 fatalities caused by explosives in mines in 1912, 5 were due to asphyxiation by gases; in addition, many other miners were rendered temporarily unconscious by these explosives. Cases of this nature are said to arise from

improper ventilation of the underground workings of the mines. In addition to the fatalities just mentioned, the effect of poisonous gases on the health of the miners must be of a pernicious character. Hence, owners and operators of mines should be obliged, by law, to provide natural and artificial means for ventilating their mines, so as to secure the free entrance of fresh air into them and the rapid escape of poisonous fumes from them, whether generated by the use of explosives or any other means. In reference to the ventilation of mines in Ontario, Mr. Corkill quotes with approval the report of the Mining Regulations Commission of the Transvaal State, which, among other things, provides: (1) That there shall be a total limit of 20 parts of carbon dioxide in 10,000 of air in the mines of the Rand; (2) that the maximum permissible amount of carbon monoxide, in any part of a mine, shall not exceed .01, and that no practicably determinable amount of nitrous fumes shall be permitted in any part of a mine.

At blast furnaces in metallurgical works in Ontario 7 men lost their lives, compared with 2 in 1911. Four of these men were asphyxiated by blast furnace gas. This gas contains from 20 to 25 per cent. of carbon monoxide. Hence it is necessary that leakage of blast furnace gas should be reduced to the lowest point. One of the men perished in the boiler room, through leakage of gas from the main. Two were asphyxiated while emptying a gas leg of flue dust. These men were working practically in the *open*, and it is difficult to understand how they were overcome.

The fourth man was asphyxiated in a gas-washing house. In this building there is always some gas, which is brought over in the water used in washing the gas. It is a rule that one man should not enter this building alone. Owing to the violation of this rule, this workman was overcome by the gas and, when discovered, was beyond recovery.

Mr. Corkill thinks that with the increased use of hammer drills, which cause a great deal of dust in drilling operations, a great many cases of miner's phthisis will come under the notice of physicians in Canada. This disease, silicosis, will arise more commonly among miners who work in mines where the gangue is chiefly quartz. Steps have been taken to keep down the dust caused by drilling operations, by ordering all the Ontario mining companies to have their drills equipped with a water spray. J. J. C.

DEATHS FROM CANCER IN ONTARIO IN 1912

We are indebted to the forty-third annual report of the Registrar-General of Ontario for statistics showing the mortality of cancer in Ontario in 1912. It appears that cancer continues to take a high toll of life in this Province. In 1912 there were 176 more deaths than in 1911. The deaths for a decade from cancer in Ontario were: In 1903, 1,156; in 1904, 1,253; in 1905, 1,224; in 1906, 1,411; in 1907, 1,329; in 1908, 1,348; in 1909, 1,597; in 1910, 1,587; in 1911, 1,602; in 1912, 1,778. The report also shows that cancer is the third most active cause of death in Ontario, the

first being organic heart disease, the second tuberculosis. The total mortality of Ontario for 1912 being 32,150, the cancer mortality for the same year is 5.53 per cent. of the total deaths.

In looking over the pathological data which accompany the cancer deaths in the report, we notice the following subdivisions: 150 deaths due to cancer of the buccal cavity; 570 deaths to cancer of the stomach, liver; 258 deaths to cancer of the peritoneum, intestines, rectum; 159 deaths to cancer of the female genital organs; 116 deaths to cancer of the breast; 11 deaths to cancer of the skin; 514 deaths to cancer of other organs not specified.

If we add the 570 deaths referred to cancer of the stomach and liver to the 258 deaths due to cancer of the peritoneum, intestines, and rectum, we get 828 deaths, 46.57 per cent. of the total cancer mortality of this Province. It has been claimed lately, by some writers in the medical press, that cancer declares itself readily in organs which have survived their usefulness, as, for instance, the mammae, ovaries, uterus, in women who have passed their climacteric. If cessation of function in these organs were a determining cause of cancer in them, then all women who have survived the menopause should have such cancers—a palpable absurdity. Besides, there is good evidence to prove that many cancers of the female organs of generation are not primary cancers. Thus, Sir John Bland-Sutton (Keen's Surgery, Vol. VI., page 126) shows that bilateral cancers of the Fallopian tubes, supposed to arise primarily in them, are really exam-

ples of implanted cancer, the primary focus of which may be situated in the gall bladder, stomach, or some part of the colon. Similarly, cancer of the ovaries is almost invariably pronounced secondary to cancer, situated in some other organ, such as the breast, gall bladder, or gastro-intestinal tract.

As an evidence of the influence of trauma in producing cancer in a retrograde organ in women, it may be remarked that cancer of the neck of the uterus is almost exclusively confined to women who have been pregnant; fecundity, it appears, increases this liability. In reference to cancer of the vulva, it has been demonstrated that trauma connected with the sexual act and its results plays the same part with the labia that the habit of smoking dirty, short clay pipes exercises on the lower lip in men. Again, in cancer of the gland tissue of the breast, a chronic injury is often noted; it may be a blow. At all events, about 10 per cent. of patients with cancer of the breast assign a specific injury as the starting point of the cancer.

As to the 150 deaths reported as due to cancer of the buccal cavity, a considerable portion of them could, if the death certificates had been fully made out, doubtless be traced to epithelioma of the lip, arising from the smoking of dirty, short clay pipes. If this assumption be true, it may be that, in future annual reports, the Registrar-General of Ontario may be able to show a reduced mortality from that form of cancer, because the younger smokers of this Province seem to prefer cigarettes to pipes.

J. J. C.

Canadian Journal of Medicine and Surgery

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Address all Communications, Correspondence, Books, Matter regarding Advertising, and make all Cheques, Drafts and Post-Office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College Street, Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

SOME REMINISCENCES OF THE INTERNATIONAL CONGRESS OF MEDICINE, LONDON, ENG., AUGUST 5th-13th, 1913

BY

PROFESSOR FRASER HARRIS, M.D., D.Sc., B.Sc. (LOND.),
DALHOUSIE UNIVERSITY, HALIFAX, N.S.*

THIS great gathering was composed of medical men and researchers in the medical sciences hailing from twenty-eight countries; about 8,000 members were enrolled; this figure included the wives and daughters of members who were qualified to join. As far as I know, Dr. John Stewart and myself were the only representatives of Nova Scotia, and Dr. Murray MacLarren, of St. John, the only member from New Brunswick. Other Canadian members, however, were: Professors Adami, Gregor Brodie, Swale Vincent, A. B. McCallum, Shepherd, McPhedran, and Cameron; Lt.-Col. Fotheringham, of Toronto, was also present.

Linguistically it was a Babel; sartorially a medley.

The opening meeting on August 6th was in the Albert Hall, whose vast area and galleries were filled with Europe's leading lights in matters medical. It was a striking and picturesque scene when this immense audience rose at the strains of our National Anthem to receive H.R.H. Prince Arthur of Connaught, who was to declare the Congress open. Not only did the costumes of the ladies give color to the assembly, but the naval and military uniforms of the medical men in those services, as well as the brilliant academic robes of all on the platform and many in other parts of the building, contributed elements of color to the international kaleidoscope.

* An address delivered to the Halifax Medical Society, Nov. 26th, 1913.

The Prince had Sir Thomas Barlow, G.C.V.O., President of the Congress, on his right, and Sir Edward Grey, the British Minister for Foreign Affairs, on his left. H.R.H., as representing the King, delivered a short address of welcome on behalf of his Majesty. He reminded us that the Dominions beyond the Seas, as well as the Great Dependency of India, were hosts along with Great Britain on that occasion. He also brought to our recollection the last International Congress held in London in 1881 when Sir James Paget was President, the one that was to hear of Pasteur's epoch-making discoveries and Mr. Lister's revolutionary researches. Since then Bacteriology has been created and Surgery re-created.

The Right Honorable Sir Edward Grey then welcomed the Congress on behalf of the Government. Science, he remarked, was indeed international in that it recognized no distinctions of race in its beneficent work which was by all nations for all nations. Several of Sir Edward's sentences were memorable. "The imagination of man," he said, "waits upon your work in the expectation that at any moment you may stimulate thought and quicken the pulse of mankind by lifting still farther a little corner of the veil and showing us yet a little more of what previously had been mysterious, unexplained and unintelligible." The speech, which was in places humorous, was heard distinctly in all parts of the hall.

Sir Thomas Barlow's address was a review of medical and surgical advance since 1881. "Every day," he said, "we gain fresh knowledge, and we realize more and more the unity and universality of medicine."

The official representatives of the various countries who were in academic dress on the platform then stepped forward one by one and gave a few words of thanks for the royal and other welcomes. Each spoke in his own language, and as he came to the front the opening bars of the National Anthem of his country were played on the organ.

The Congress divided itself up into twenty-three sections, of which one, that of the History of Medicine, met for the first time. This section was inaugurated under the Presidency of Dr. Norman Moore, one of the foremost medical historians of Great Britain.

The following list of titles of papers will give some idea of the variety of subjects discussed in this section:

St. Luke and Virgil; the Medical School of Cos; Leprosy in the Middle Ages; Engravings in Medical Works up to the End of the XVII. Century; Doctrines of Van Helmont; St. Anthony's Fire; Embalming and the Mummy; Did Napoleon Suffer from Hypopituitarism?; Medical Printed Books up to 1480; Rhazes; the Barber-Surgeons of Great Britain; Hindu Medicine; the Origin of Syphilis; a M.S. of Guy de Chauliac; Medical Knowledge in the Scottish Highlands in the Middle Ages; Galen's Muscular Anatomy; the Relations of Botany to Medicine; the Surgical Instruments of Antiquity; and a paper by myself on "Harvey and Caesalpino, the Controversy Reopened." It was certainly a privilege to give this paper in the hall of the library of the College of Physicians of England. The bust of Harvey behind me; his library on my right; and on my left the tabulae Harveianae and the Jansen portrait, both of which survived the fire of London. In connection with this section, Mr. Henry S. Wellcome, of Messrs. Burroughs, Wellcome and Co., had brought together in London an immense collection, the nucleus of a permanent museum, illustrating the history and development of Medicine from the earliest times to the present moment. You could travel the centuries from Egyptian aortic atheroma to the latest insect suspected of carrying pellagra.

The catalogue of the Museum is an illustrated book of 140 pages and deals with the following among other subjects: Primitive and Savage Medicine, Past and Present; Mexican and Peruvian Medicine; Oriental, Egyptian, Greek, Roman, Mediæval and Renaissance Medicine; Portraits of Medical Men of all countries; Relics of Harvey and of Jenner; M.S.S.; printed medical books; university diplomas in medicine; instruments of torture from the 15th to the 18th century; a facsimile reproduction of an alchemist's laboratory; facsimile of a London apothecary's shop of the 15th century; an Italian pharmacy of the 16th century; a barber-surgeon's shop of the 16th century; an Italian lying-in-hospital of 18th century; life-size figure of a renaissance plague doctor, and so on. Nothing had been forgotten; two prescriptions of the late murderer Dr. Crippen

were there; there were caricatures from French journalism ridiculing everything from Jenner to Ehrlich. It was right that they should be there; they illustrated the disagreeable side of human nature—the small, the dark, the loathsome; the type of mind that belittles everything even the greatest, that debases everything even the noblest, that believes in nothing, that glories in distorting and in falsifying the truth; the mind that loves a lie. To this museum I sent two trifles I had by me: the signature of Dr. Robert Knox, the extra-mural lecturer on anatomy, whose rooms were for a time supplied with "subjects" by the murderers Burke and Hare, and the signature of William Burke himself when a prisoner in the Calton jail a few days before his execution.

As I was enrolled in two sections—Physiology and the History of Medicine—and having to read a paper in each, I had, of necessity, to miss some of the transactions of both.

In the section of Physiology I heard the discussion on "Reciprocal Innervation" and that on "Internal Secretion," the latter held conjointly with the section of Medicine. My own paper was on "The Existence of a Reducing Endo-Enzyme in Animal Tissues."

Professor Sir Edward Schäfer made an interesting communication on "Internal Secretion," pointing out that the time had come to introduce some new terms, seeing that the term "Hormone" designated only such internal secretions as increased the activity of an organ or tissue. Bayliss and Starling gave the name hormones to exciters of action; but since their discovery, internal secretions which inhibit activity have become known. Schäfer suggested that these latter be called Chalones (from the Greek Xalao, to repress). A new name would therefore be required for the group, and "Autocoid" is suggested: hence the classification would be:

$$\text{Autocoids} \begin{cases} \text{Hormones.} \\ \text{Chalones.} \end{cases}$$

In this and in every other section of the twenty-three a resolution was unanimously passed approving of the existing facilities for experiments on animals being continued to the British physiologists under proper supervision as heretofore. Some very interesting demonstrations were given in the three

largest laboratories in London—at University College, King's College, and the University of London, S. Kensington. One on the circulation with hirudinised blood (dog) through surviving heart and lungs only—the Knowleton-Starling preparation—was very instructive.

It was distinctly interesting to note the subjects that were being discussed at the Congress which were entirely new since 1881—subjects some of which required sections to themselves.

Thus Chemical Pathology, Anesthesia, Diseases of Children, Neuropathology, Urology, Rhinology and Laryngology, Otology, Stomatology, Radiography, Naval and Military Medicine (exclusive of Hygiene and Forensic Medicine), all required a section to each; and, as I have said, the section of the History of Medicine was constituted for the first time. In 1881 radium was unknown, the Röentgen rays undreamed of, medical cataphoresis undiscovered. One cannot resist the temptation to remark that none of these things on its discovery was thought to have the slightest connection with medicine or surgery, and yet we hear people speaking, for instance, of the X-rays as being absolutely indispensable in surgical diagnosis. In the same way, sailors regard the wireless telegraphic installation as indispensable at sea—so soon do we assimilate the marvellous. In 1881 there was no physiology of the internal secretions: adrenaline, pituitrine, iodo-thyrine, secretine, were all unknown, undreamed of, and now adrenaline is indispensable as a local hemostatic: a library has arisen round these secretions.

An important feature of the Congress was the General Museum of Anatomy, Physiology, Pathology, Medicine and Hygiene. Naturally the physiological exhibits interested me most. There were some new types of apparatus for the chemical physiologist, amongst them colorimeters or tintometers recently introduced for such estimations as those of creatinine and of uric acid in very small quantities of urine or other fluid.

A worker from the Department of Anatomy of the Khedivial School of Medicine at Cairo showed some very fine injections of the blood-vessels of organs done with a new metal or rather alloy having a low melting-point but solid at ordinary temperatures. They were finer than anything I have ever seen, and

although the metal is brittle, the specimens had stood the journey from Egypt excellently. Further, as the parenchyma had been dissected off, we had the whole vascular system isolated in space, a view of things better calculated to give one a proper conception of the vessels than a section necessarily showing only the view in two dimensions.

Professor Spateholtz showed some very beautiful preparations of fish, frogs, etc., made transparent by treatment with certain liquids. One could see the bones, viscera, etc., of the animal much more distinctly than in the best skiagraph. In some of these animals the blood-vessels had been injected, so that the whole vascular system was shown up in the transparent body as well as the bones and viscera.

The anatomists showed a torso in wood, cut up transversely into solid sections, on each one of which were painted all the viscera and other structures in their correct relationships at that level. For teaching purposes, such a model must be exceedingly useful.

Two Edinburgh workers showed a fine series of electrocardiograms in various diseased conditions.

Prof. A. D. Waller, F.R.S., very kindly took my electrocardiogram by means of his Bock-Thoma oscillograph in the Physiological Department of the University of London; I have it here this evening.

On one wall of the Museum there was displayed a number of representations of diseases due to alteration in activity of organs endowed with an internal secretion.

The Section of Surgery seemed to have had some very sensational things to disclose, if one may judge from the newspaper reports of it. Sir Wm. MacEwan showed a patient from whom, ten years before, he had excised one lung for tuberculosis, and he related successes in four other cases, photographs of whom and of whose excised lungs were shown. In one of these cases the patient had suffered distress from his heart "flopping," whereupon Sir William stitched his pericardium to the chest wall.

Some valuable papers on grafting of bone and on transplantation of organs were read in this section.

Mr. Evans, of London, demonstrated a patient, a woman of forty-three, from whom he had removed the larynx and most of the esophagus for cancer four years previously, a rubber tube passed from the pharynx via the neck to the stomach. But the subjects discussed at this great meeting covered the whole field of the theory and practice of the healing art, from beri beri and pellagra to the Piltdown skull and legislation as to venereal diseases.

In addition to the sectional meetings, special addresses were given to sections or to the whole congress. Prof. Bateson, of Cambridge, spoke on Mendelian Heredity and Eugenics; the Rt. Hon. John Burns, President of the Local Government Board, addressed the Congress on National Hygiene; Prof. Harvey Cushing gave the address in Surgery, and Prof. Paul Ehrlich in Pathology.

I was privileged to hear Ehrlich's address, which was delivered in very clear German with vigor and emphasis. The whole audience rose to greet him and cheered him for some minutes as he got up to speak. The great German pathologist referred at the outset to the British workers in the field of infections, and especially of tropical diseases—Manson, Bruce, Ross and Leishman. Plunging into his subject he reminded us that, *Corpora non agunt nisi liquida*, and *Corpora non agunt nisi fixata*. He quoted certain cases of elective staining as part of a chemical specificity of reaction between living cells —parasites—and certain pigmentary salts or "stains," as we call them.

Substances—whether stains or drugs—which have this elective affinity for parasites, he would call "parasitotropic," and that chemical side-chain in the constitution of the parasite which fixes the stain or drug, he calls a "chemo-receptor." The chemical group in the drug which fastens itself on to the chemo-receptor group of the parasite is called "hapto-phoric."

Clearly, a drug in order to kill a parasite must not only be fixed to it, but must poison it as well, and in poisoning it must not poison its host.

The effective drug must, therefore, possess both a haptophoric and a toxophoric group in its chemical structure.

Ehrlich likens an effective drug, poisonous for a parasite,

to an arrow—the feathered end is the poisonous end, the barbed end does the fixing, and the shaft is a necessary bond of union between the two ends without which the deadly feather could not arrive at its victim.

The construction of salvarsan is a triumph for what one might call rational, theoretical chemo-therapy.

Ehrlich pointed out that each arsenic atom here is tri-valent, each having three unsatisfied valencies; it is on this chemical property that he thinks the toxicity depends. He used, in fact, unsaturated arsenic; for ordinary penta-valent (saturated) arsenic is not toxic for parasites or not to anything like the extent of the unsaturated. Arsenic unsaturated is to ordinary arsenic what nascent, active oxygen is to inactive, molecular oxygen.

Reporting on the therapeutic value of salvarsan, Ehrlich said that one single injection of it had cured one of the diseases due to a spirochete, viz., frambesia or yaws. At Surinam the hospital had to be closed, for its 300 patients with frambesia had all been cured after one injection.

The following diseases were all mitigated in severity:

Tertian malaria; blastomycosis; erysipelas; Aleppo boil; and in horses, lymphangitis epizootica and African glanders have both been cured by a single injection. Allusion was also made to the diseases due to invisible germs, "filter-passers," or super-germs, as they are being called.

The entertainments for the members of the Congress were numerous; some of them were on a very large scale, and many of a unique character. I was able to take part only in a few of them.

H.M. the King gave a garden party in the grounds of Windsor Castle. The King, who was at Cowes, was represented by the Lord Chamberlain, who received the guests. A special train took the guests from Paddington.

The Government gave a dinner to representatives of countries and to the office-bearers of sections.

There were dinners by the presidents of sections, and there were many private dinner parties.

Lord and Lady Strathcona gave an evening reception at the Botanical Gardens to the whole Congress. The evening was fine.

The president received the Congress in the Great Hall of the Museum at South Kensington on the evening of the opening day. Sir Francis Champneys, president of the Section of Obstetrics, received at the Royal Society of Medicine, Cavendish Square; Sir Rickman Godlee, president of the Royal College of Surgeons, also held a reception.

Railway excursions had been arranged to Oxford, Cambridge, Canterbury, Shakespeare's country, Bath, Harrogate, Brighton. One interesting garden party was to Strawberry Hill, near Twickenham, on the Thames, a place laid out and the house built by the well-known dilettante and man of letters, Horace Walpole. The large grounds were a blaze of flowers, and they have some splendid old trees. We were shown over the mansion.

The Archbishop of Canterbury and Mrs. Davidson received 350 guests at Lambeth Palace one afternoon.

The following London houses were thrown open to members: Apsley House, Grosvenor House, Dorchester House, and Lansdowne House. The Tower of London and the Mint were open to inspection.

The haunts of Dickens and of Dr. Johnson were visited; the old Physic Garden at Chelsea was on view, and the Hall of the Barber-Surgeons in the city was kindly shown to a limited number of members of the section of the History of Medicine. The British Museum made a display of early medical printed books.

Nor were those female persons absent who have been demonstrating for the last year or so to what lengths neurotic women will go when once they have lost all power of self-control and all sense of the relative proportion of things both political and ethical. These misguided ones, covered front and back by notice-boards, walked round and round the Albert Hall trying to make the English-speaking members of the Congress discuss their wrongs and admit their rights. But as we declined to be drawn into the controversy, the women did their best to engage the attention of the foreign members. It was most amusing to watch a group of savants, representing half a dozen continental or oriental countries, listening most politely to the declamations of one of these lost ones without understanding a single word.

They were being told that the British Government were murdering women and committing atrocities worse than the worst vivisectors!

It was surprising how one met old friends; men under whom one had studied, and with whom you had studied, you met as you turned a corner, crossed a corridor or mounted a flight of steps. The professors seemed very little changed, a little grayer, a little graver, but as hearty as ever in their greetings. One's old friends looked quite prosperous, as though the fifteen or twenty years of advice-giving and fee-receiving had mellowed and sustained them. For a moment the name of a well-remembered face would not emerge from the depths of memory, until, after a pathologically long latent period, all of a sudden each member of the pair would recognize the other in a flash of inspiration.

On Sunday, August 10th, three special sermons were preached in connection with the Congress—at St. Paul's Cathedral, by the Dean, the Very Rev. Dr. Inge; at Westminster Abbey, by Bishop Ryle, C.V.O.; and at the Roman Catholic Cathedral by His Eminence Cardinal Bourne. Dr. Inge told his hearers what immense power for good the physician could and should wield in modern life; how great were his opportunities, how vast his responsibilities.

The Seventeenth International Congress was a very great gathering, for it was the assembling in one city—and at times under one roof—of the leaders in medical thought and in surgical practice from the four corners of the habitable world. There were men from lands within sight of the Polar Sea, men from under the Southern Cross; there were men from sunny Japan and from inscrutable China, and from the vast republics of Latin America; men that had solved problems until quite lately regarded as insoluble, who had explored continents of knowledge darker than the Dark Continent; who had, some of them, risked their lives for science in pestilential cities and malarious swamps, men whose discoveries are slowly rolling away from humanity the incubus of useless suffering; who are showing to mankind the path towards its physical salvation; whose researches have already done a very great deal to snatch the spoils from death.

ETHICAL PROBLEMS UNDERLYING THE SOCIAL EVIL

By Peter H. Bryce, M.A., M.D., Chief Medical Officer Department of Immigration, Ottawa.

In complying with the request of your Society that I address you on some topic appropriate to its objects, I have considered how best I could compress into a short paper some remarks which might be of practical value, when volumes have been written without in any degree exhausting the subject. This is, of course, due to the fact that in the term "ethical" is included the whole attitude of man toward Life, as exemplified in his every word and act.

What, then, do we mean by the word "moral" or "ethical"? Essentially it means: pertaining to those qualities which distinguish man as a moral being and which relate to his habits and modes of thought and action as distinct from the lower animals. The status of a nation is essentially measured by the ethical plane upon which the great majority of its people are to be found. That of Canadians will be measured by the quality of our acts, personal, social and political, which gives character to our people as a whole. Where, then, regarding such, shall we begin—with the individual or with the nation? Surely with the individual, since Society is but a microcosm, made up of its units, combined into a living whole. Shall we start with the child at birth? Surely even prior to this, for in the child is to be found the germ of all qualities, physical and mental, of its parents, and even grandparents. Clearly then the qualities of the parents and the sanitary environment in its broadest sense of the mother are of inestimable value and importance to the future of the child and of the nation.

Everyone to-day is familiar with the fact of living organisms, whether plants or animals, being built up from the in-

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dividual cell and of how this divides and multiplies infinitely, each cell being nourished or impeded in its development by its environment, according as this is favorable or the opposite. Evidently then as the plant or animal is constantly influenced by air, sunlight and food, so must the tissue cells, whether pre-natal or post-natal, be daily, even hourly, influenced by their surrounding fluids. But there is much more than this. As the infant obtains its physical pabulum from without, so only by external impressions do its most complex cerebral cells receive their impressions from without through the special senses, which serve to develop what we call mind; and upon their receptivity, the quality of these impressions and the clearness and frequency of them will be the extent and degree of intelligence and of what we call character. What then to me at least is perfectly evident, is that the education of the individual in its widest sense is the postulate, once granted, upon which we must base our attempt to solve the problem of social and personal morality.

Time will not permit us to enter greatly into the details of what this education implies; but it is important to remember that every aberration from the normal is associated with the quality of the cerebral tissues, which receive impressions, whether constitutional or affected temporarily by internal or external influences, and that every outward act, whether spoken, written or performed, produces its definite effect upon persons or society, quite measurable were our instruments of experiment sufficiently delicate and accurate. Can anything, then, be of more importance than that the mother of the life yet to be, or which is, shall have every influence surrounding her, whether physical, mental or moral, of the highest, purest and most wholesome character in order that the effects upon her offspring may be productive of the happiest results. Are these, then, not the most potent of reasons why the mothers of our people should fully realize that the duties of motherhood become in a peculiar sense those of patriotism in the sense understood by the Spartan mother, who, when asked how it was that the women of Lacedemon rule the men, replied: "Because we grow men."

I have thus far spoken regarding the mothers of the race; but what shall we say regarding the fathers of the people? Referring to the "Social Evil" an acute writer says: "Society condones man's moral lapses . . . but society demands that the mother be without taint or blemish of immorality" "Differences in environment due to occupation multiply the opportunities leading to man's temptation." "Modern industrialism is one of the most potent factors." "America is rapidly becoming urban. The occasional contact of the sexes found in rural districts has given way to practically constant contact in the cities. Woman's sphere in the world has ceased to be domestic and every day finds her invading some occupation heretofore filled by man." Extending his observations to the immediate causes of immorality the same writer gives lack of occupation as of the idle rich and inherited wealth, lasciviousness in papers, books and plays, erotic pictures and suggestive styles of dress and abuse of alcohol. But I need not illustrate further the immediately causative factors in our problem. We know many of them and they vary with time, place and circumstance. What we must endeavor to recognize is that there is a real distinction between the *original* or *initial* and the *immediate* or *proximal* factors in the problem, and that in any attempt to find a real solution we must discriminate between essential causes and the superficial phenomena of immoral conduct. From what has been stated in a previous paragraph it will be understood that to me it is of the utmost import to fully investigate the original causes of the moral disease. I recall correspondence with a prominent English physician regarding specific disease in the child of a family purposing to come to Canada in which as an argument for its admission he stated "That if we were to refuse admission to Canada of every syphilitic then three-fourths of the English immigration would be stopped." Making every allowance for exaggerated statement we are forced to enquire: What have been the most potent causes making such a statement possible? While we recognize the profligacy of courts and the licentiousness of the great who in past centuries looked upon their inferiors as the natural servants of their pleasures, yet we have only to study the social history of Great

Britain in order to realize that the great middle classes dominated by the teachings of a severe theology, engaged as they were till toward the end of the eighteenth century largely in agriculture and the handicrafts of innumerable village communities, lived under conditions which ensured a physical, mental and moral vigor which it has taken a hundred years and more of urbanization to break down or dissipate. On this continent until half a century ago, the older States of the American Union and the Provinces of Canada were largely agricultural, and the Puritans of New England, like settlers of other communities, practised a stern morality, which has only broken down under those demoralizing influences which have grown up with the rapid growth of industrialism, the congregating of immense populations in cities and the insidious and degenerative influences attaching to the rapid accumulation of centralized wealth in the hands of millionaires. These with modern facilities have ushered in a period of unparalleled luxury and vulgar ostentation which have permeated all modern society until moral values have become obscured by a hedonism and love of pleasure as potent as it is vicious and which has made wealth and what it will procure the almost sole standard which governs man and nations to-day. Its effects on the home are seen in the statistics of divorce, which in some States have reached one in every eight marriages, while both in England and Canada the newspapers retail daily accounts of marital unhappiness almost always the result of moral delinquencies. But bad as these notorious lapses are, they are only the eruptive evidence of the moral malady within the body politic. To me the most serious results of this debauch of luxury are seen in its effects upon the young men of our urban communities. Accustomed to conveniences, pleasures and luxuries in their homes, unknown even half a century ago to the rich, the logical effect has been to delay marriage long beyond what was formerly the custom or what the laws of nature teach, because of the lack of the income to maintain the social standing which such a man is accustomed to and which the social needs of his prospective wife—not helpmeet—seem to demand. I asked a prominent clergyman, active in the moral reform movement, if

in his church or in any of the fashionable churches he knew of any serious crusade against the luxury of the so-called Christians being made, and whether he did not think it idle to expect the young men of to-day to control their sexual instincts when everywhere they moved in an atmosphere where the gratification of the senses is the natural occupation of society. Accept the evidence of a criminal episode brought out in the courts concerning the æsthetic libertine on the one hand and the aberrancies of a moral degenerate on the other in the Thaw case, and multiply such examples indefinitely and we begin to realize the intimate relationship between effects and causes and which it is absolutely essential that we comprehend as regards their far-reaching influences if we are in any measure to understand the real causes of the "Social Evil."

At the moment of writing this page I was travelling in a Pullman on Sunday and had impressed upon me the ennui of two commercial men who, the previous midnight, had been stupidly intoxicated, and were again finding in the bottle from the valise their only relief. One may ask, if the habits formed and thus illustrated must not logically result in the danger of such becoming victims of disease, due to the gratification of their desires and which cause twenty per cent. of the inmates of our asylums, and whose associates are the abandoned class of our cities? Reading in a Montreal paper on the same train I found an article on "The girl and her liberty," in which was the following: "Such a number of young girls seem to find their way into the courts through being left to exercise a liberty for which they have not been fitted in any way. Owning no one's authority, least of all that of her parents, and with no training in self-discipline, the girl follows her own will or the example of companions as ill-trained as herself, until she comes up suddenly against the consequences of her own folly. The natural guardians, where there are such, having in so many cases failed to look after those of their household and see to it that they did not get into wrong courses, the courts step in."

The immediate reason for the article was the news item that at one session of the Delinquents' Court of that city some fifteen girls from twelve to eighteen years appeared for improper

conduct on the streets. The sad stories were told of girls having no home occupation or entertainment, of their going to cheap theatres with young men, then, later, supper with cheap wine, intoxication, and then the court. The writer of the article quoted from leading English novelists on the subject of "the girl's liberty," and these seemed to agree that "No amount of liberty will spoil an innately nice girl"; but the conclusion arrived at was that "To make a man or woman fit for liberty they must first be disciplined to control themselves." One does not need to give examples, which we all could cite indefinitely, to show, whether amongst the more ignorant classes or in the higher circles of society, that it is just to this lack of moral education and self-discipline, which can only be learned in the home, school or occupation, that the greater part of the moral evils which we deplore are primarily due.

Hence we turn in our enquiry to some of the practical means of securing what we all recognize as essential if we expect to see the "Social Evil" seriously lessened.

Dr. Lewellys Barker, before the Conference on Mental Hygiene in New York last November, speaking on "Unsoundness of Mind a National Handicap," said: "The number of children born into the nation with defective brains could be diminished. Social and educational conditions could be improved so that the sum of the influences acting upon the nervous system of children, adolescents and adults would be more favorable to brain and mind than now." . . . "Idiocy and imbecility, due to the imperfect development of brain, may be the result either of bad heredity, or of serious disease in the earliest period of life. The form of insanity which occurs later in life may also be due in part to bad heredity, in part to bad environment." . . . "Again, many people seem ignorant of the fact that mind includes not alone intellect, but also the affections and the will."

At the same meeting Dr. J. V. May, of the N. Y. Hospital Commission, stated: "That 18 per cent of the insane cases admitted into New York State hospitals in one year were due to syphilis, 22 per cent. due to alcoholism, and 27 per cent. due to insanity in the family"; or together these three causes accounted for nearly 75 per cent. of the total admissions. It

will, of course, be apparent that behind hereditary insanity must in too many cases lie the other two diseases in the ancestors. "It is also clearly obvious that of the enormous number of persons who as a result of hereditary transmission are susceptible to a nervous breakdown, many could be saved by proper assistance during the developmental stages." Dr. May, by *prevention,* is speaking especially with reference to alcohol and syphilis; but it will be apparent that behind this we must seek in the home, in our systems of education, in moral and religious teachings, and in our social customs and in legal enactments for the real preventive measures.

Dealing with the problem of education, Prof. G. T. Canfield, Vice-President of the State Charities Association of New York, says: "Neglect of childhood, child labor, improper housing, tuberculosis, inebriety, insanity, feeble-mindedness and other conditions of this sort all of them invoke so much of suffering and crime, and all of them impose such a heavy financial burden upon the more thrifty members of society, that the old remedy of dealing with these evils has become entirely inadequate;"—meaning sentimental philanthropy and the distribution of charitable relief. Dr. May then points to the means of education, indicating that each of us as individuals require to educate ourselves, our families, relatives and the community in personal habits and self-control. Then follows the education of the community and the creation of an effective public opinion as regards social customs, as in the matter of the use of alcohol and the control of the social evil and of such amusements as are distinctly demoralizing.

I was much struck with the remarks of Dr. S. M. Gregory, alienist to Bellevue Hospital, with regard to "Social Service" in the prevention of nervous breakdowns. Passing over cases actually in institutions, the speaker told of the large group of people outside who are neurasthenic, psychopathic, alcoholic and so-called nervous people, and the odd, eccentric, and the so-called artistic temperament, and then points out that the social worker must endeavor to make a complete analytical study of such, and his environment, his physical, religious, sexual and educational life, his inherited tendencies and bringing up, his tastes, his longings and his disappointments, and his

erroneous viewpoint of life. These the social worker will seek to correct, and especially by assisting the physician in dealing with such cases. He points to the nurse trained especially in psychopathic clinics, as being peculiarly fitted for this work, and illustrates by cases what has been done for, especially, women in their homes. He further advocated that these workers go out from several social centres in the larger cities, while these keep in touch with the social service branch of the hospitals. What room there is for this work was indicated by the fact that 12,000 such neuropathic cases are annually discharged from Bellevue, nearly all of whom need such assistance.

Dealing with syphilis and insanity, Dr. G. H. Kirby, Chief of the Service at Ward's Island, N.Y., takes up the question of education in relation to syphilitic disease, and points out that 75 per cent. of the insane admitted to hospitals for insanity due to syphilis have been married men, most of whom were infected as young men. He adds: "The peculiar tendency of the syphilitic germ to remain quiescent for years, while all obvious symptoms of the disease disappear, served to keep us long in the dark regarding the true cause of some of the most serious nervous and mental troubles with which physicians have to deal." To-day the blood test makes the explanation easy. Indicating the dominating influence of this disease upon the children of the syphilitic parent, Dr. Kirby states that with the parent insane from paresis, due to syphilis, other members of the family will be found affected with syphilis and that a surprisingly large number of children in these families are feeble-minded, nervous, and in other ways abnormal." Dr. Plaut examined a group of 100 children, the offspring of cases of paresis, and found that 45 per cent. were damaged mentally or physically, or in both fields. The blood test showed that one-third of these 100 children had the syphilitic poison in their systems."

Dr. A. J. Rosanoff, of King's Park State Hospital, N.Y., speaking on "Eugenics and Insanity," while pointing to the unfortunate effects of heredity on insanity, says: Furthermore the doctrine of heredity is not so fatalistic as it seems to those disinclined to accept it. The doctrine does not by any means

imply any denial or even belittling of the part played by environment. On the contrary, by throwing much light on hitherto obscure relations between personality and environment, it serves to emphasize how essential in many cases is the influence of the latter. In other words, exact studies in heredity reveal not only *how much* heredity is responsible for, but also *how little;* and even where the burden of heredity is great the realization of that fact will serve only to aid in a more intelligent adjustment of the environment with a view to the preservation as far as possible of the mental health of the individual in question." "In the same way a knowledge of these laws in their relation to human faculties affords a hope for the cultivation of a human race not at random, but with its weaknesses eliminated and its strength increased."

I have tried, by quoting from writers dealing with the various factors entering into our problem, to illustrate its extent. From these it would seem obvious that, whether in its diagnosis or in its treatment, we have the two underlying principles indissolubly mingled of *eugenics* and of *eusthenics,* and recalling Dr. Rosanoff's paper on Mendelism, or heredity, it is indeed consoling to know that the *how much* of what may be inherited is placed alongside the *how little,* which may result from heredity, and that in permanent results we have in environment—in all that the term implies—the potentialities of almost infinite improvement. Writing some years ago on "The Ethics of Public Health," I stated what seems very appropriate here: "Nature is indeed not evil, but beneficent; but Nature must work out her own problems. So must man be true to his mission. Endued with powers which make him a part of Nature, yet made by the Creator to be the head and crown of things placed on this earth to work out the purposes of Him who has caused man to evolve through the functioning of brain tissue peculiar to man, those high and yet higher principles of life, which operate through the same essential materials as those of the simplest living being, since the complexity of organization and structure in man is but the multiplied functioning of cells as simple as the protozoan animalcule, we behold in the whole mystery of Nature man given the exalted and single opportunity of overcoming seeming evil by

the exercise of his God-like powers through the purified and developed intellect in all its attributes."

I have attempted to deal with causes and with effects, and to some extent with treatment, in our study of the problem before us; and, were it possible, would like to prescribe a treatment of the disease which would prove a panacea for the physical, intellectual and moral evils involved. I am afraid, however—indeed, we know—that we are not sufficiently advanced for this; but yet we are not wholly without an armamentarium. Go anywhere amongst a congested population, as where Carlyle, in "Sartor Resartus," looks down on a sleeping city and moralizes on its vanities and inanities, mingled with tears and suffering; or to a seaport and observe 5,000 foreign immigrants in a single day, and this lack of moral advancement must impress one. In such we behold different languages, varying customs, distinctive dress, diverse habits, and even special foods, varying outlooks on life, hopeful, serious or gloomy, whether as influenced by their homes in the sunny South or their constant struggling with grim Nature in the North—in either case tinged with the differing teachings of their religious cult. Each influences and each has its effects upon the ethical plane upon which nations and communities live, and enables us in some slight degree to realize the problem we have before us and how inadequate we are for its solution. And yet if one looks into the honest eyes of a Galician mother bearing her sturdy baby, suspended in a bright-tinted shawl, or observes the stolid Russian moving forward towards his goal in a free country with some small hopefulness, he becomes soon convinced that it only needs the human touch to prove all men kin, and that it would be a simple matter, were our machinery at all adequate, to take this elemental, intellectual and moral material with all its potentialities and mould it into one homogeneous and elevated ethical whole.

How, then, can this ideal be arrived at? Of course we answer by saying: First, understanding the nature of the problem, its extent, the methods by which it must be attacked, and then strive to find some means adequate to this end—in the fields both of eugenics and eusthenics. Regarding the former I may say I have little faith in drastic measures such as are

being passed by several legislatures in neighboring States until we have a more generally diffused and higher standard of knowledge; but we can at least adopt recent English legislation and provide for the removal to Homes for the Feeble-Minded of moral delinquents, and through wholesome environment and useful occupations educate so far as possible these defectives, provide them with protection and a livelihood, and at the same time protect society against their aberrancies and the propagation of their kind.

The regulation of marriages regarding medical certificates of physical and mental health will be educative; but I greatly fear that a more independent person than the family physician must be the one to issue a certificate; and yet none is in such a good position or ought so willingly to aid in protecting the interests of the families of whom he is the adviser. But the higher type of physician can do much more than advise, since, as the confidante of at least the mother of the family, he can and ought to guide her in matters relating to the education and development of her children. In this field there is laid upon no class in the community such widespread responsibilities, since none equals them in opportunity as those of the family physician. And yet as remarked by psychologists everywhere, there is almost no medical school with anything more than the beginnings of instruction in psychiatry. It seems most remarkable that all that is taught anywhere is some elementary work to the teachers of our normal schools, so that what reaches the future mothers and fathers of the nation is of the most accidental sort.

In the field of eusthenics, or education in strength-giving, it is quite apparent that all we have said regarding education is important; but the sanitary environment, which includes housing, lessening of overcrowding, which includes the cost of land, of wages, the cost of food, local taxation, and child labor, is seen to mean everything which makes up the daily life of the individual. Dr. Mott, pathologist to the London Asylums Board, said recently, in a paper before the Royal Sanitary Institute:

"If it can be shown that there is a correlation between insanity, tuberculosis, alcoholism, syphilis, and overcrowding

in one-roomed premises, and insanitary dwellings in our large cities, it might be asked whether public money would not be better expended in solving the housing problem than in spending vast sums on sanatoriums and lunatic asylums in the hope of dealing with physical and mental degeneracy."

It is apparent, then, that we must attack the question of unfavorable environment in a broad way, if we expect to diminish seriously the "Social Evil." Nowhere do our Lord's words, "Lead us not into temptation, but deliver us from evil," seem so pregnant of truth and meaning. Dr. Landis, already quoted, says regarding urbanization, "The constant contact of the sexes in occupations, with much danger to morals, is inevitable"; while limiting these influences as far as possible by removing to an environment where occupation in sunlight and fresh air with an abundant food supply is the everyday existence, seems one logical means of dealing with what has become a national problem.

It might be thought that a paper on this subject is incomplete which does not take up all the problems of the "curfew," licensing of prostitution and a red-light district, the establishing of a Delinquents' Court, the probation system, the industrial farm and all the adjuncts attaching to our penal systems; but it appears to me that such are but attempts to treat the sick and cannot prevent the disease about which the world has for thousands of years philosophized and pondered, as upon "the origin of evil," too often looked upon as an emanation from some Demonic power, opposed to the Divine. Close analysis, however, would seem to teach us that its phenomena are but illustrations of human imperfection of the too often untrained, not necessarily untaught, child in those principles of education through which Froebel and all teachers like him have sought to develop character. The laws of evolution are equally applicable in the mental and moral as in the physical sphere; an overcoming through struggle—the survival of the best. As man has learned to subdue Nature, to discover her secrets and make them subserve his needs, so must he struggle to overcome in the mental and moral sphere until discipline shall make conformity to high ethical ideals the law and normal routine of his life; in a word, the process which has marked in

man from the beginning his movement upward toward the Divine.

As Browning, in "Paracelsus," says:—

> "'Tis time
> New hopes should animate the world, new light
> Should dawn from new revealings to a race
> Weighed down so long, forgotten so long; thus shall
> The heaven reserved for us at last receive
> Creatures whom no unwonted pleasures blind,
> But ardent to confront the unclouded blaze
> Whose beams not seldom blessed their pilgrimage
> Not seldom glorified their life below."

Society Proceedings

ACADEMY OF MEDICINE, TORONTO

A SPECIAL meeting of the Academy of Medicine was held in the Physics Building of the University of Toronto on March 2nd. at 8.30, when an address on "Typhoid Inoculation" was delivered by Sir William B. Leishman, K.C.M.G., F.R.S., Professor of Pathology, The Royal Army Medical College, London, England. The meeting was one of the most largely attended during the current winter and afforded the Fellows of the Academy the opportunity of meeting one of the most delightful gentlemen who has graced Toronto with his presence of recent years. Prior to the meeting, President H. J. Hamilton entertained a number of the members of the profession to dinner at the York Club.

President H. J. Hamilton, in introducing Col. Sir Wm. Leishman, said:—

Your Honor, Ladies and Gentlemen,—I feel it a great honor to preside over a meeting of this character, and nothing has given me greater pleasure during my tenure of office as president of the Toronto Academy of Medicine than the duty which now devolves upon me of introducing to you Colonel Sir William Leishman, F.R.S., K.C.M.G., Honorary Physician to the King, and Professor of Pathology at the Royal Army Medical College, London, England. I may be permitted to say some things which our distinguished guest could not say.

The mere mention of Sir William Leishman's name will be sufficient to recall to your memories the great and far-reaching importance of the scientific work which he has done in connection with that branch of our profession which is known as Tropical Medicine, and in the prophylaxis and treatment of typhoid fever, and the benefits which humanity in general has derived from it. The importance of the successful results which he has obtained in this latter department of his work, both in

regard to the Army and civilians, whose duties render it necessary for them to come into contact with patients suffering from this disease, cannot be over-estimated and the relationship of these results to the more efficient protection and maintenance of public health is of the greatest significance, both to our own profession and to the laity.

To Sir Almroth Wright and Sir William Leishman we owe the great diminution in the incidence of typhoid fever in the British Army, more especially in India, the mortality also being very considerably reduced in all parts of the Empire. Sir Almroth Wright, in 1898, was the first to suggest the inoculation of British soldiers against typhoid infection, and when he left the army in 1904, the work was continued by Sir William Leishman, who had previously been his colleague, and who has improved and perfected the technique with extremely satisfactory results.

I should like to briefly refer to the work which has been recently done in this connection in the United States by Major Russell, who first commenced inoculation in the army there in the year 1908, and has also obtained extremely satisfactory results. The statistics given in the Surgeon-General's Reports for 1909, 1910, 1911 and 1912 indicate what has been accomplished in an army in which, previous to this period, it was not by any means an uncommon thing to have large numbers of men disabled for a considerable time by typhoid fever. The Reports for 1911 and 1912 state that not a single epidemic of typhoid occurred during these two years, and that there were no deaths from the disease amongst the men who had been inoculated. In 1910 there were only seven cases with no mortality amongst the soldiers who had been immunized against the disease, whilst among the non-inoculated men there were 135 cases with ten deaths.

In a recent article by Major Russell he gives a striking illustration of the efficiency of antityphoid vaccination. In the campaign in Texas there was only a single case of typhoid in an army of nearly 13,000 men, the man showing signs of the disease before the third dose of the vaccine had been given. As opposed to this are the statistics of the army at Jacksonville

in 1898, in which there were 2,693 cases in 10,759 men, with a mortality of 248.

In August, 1913, it was reported that not a single case of typhoid had occurred in the army stationed in the United States, Hawaii, Porto Rico, Panama, Alaska and the Philippines, the last admission to hospital for typhoid being on October 27th, 1912.

As regards this country, the production of antityphoid vaccine was made a routine measure in the laboratory in the spring of last year, and during the last nine months about 4,000 doses have been distributed in the Province. The greatest demand for it has been from physicians in charge of lumber and construction camps. In several instances inoculation was not carried out, but sufficient vaccine was kept on hand to inoculate the inmates of these camps in the event of the appearance of the disease.

In the preparation of the vaccine the organism used was obtained from the Royal Army Medical College, and belonged to the Netley strain which has been used in the British army for many years.

The vaccine sent out from the Provincial Board of Health was used in six localities to inoculate the members of lumber and construction camps by Drs. Burroughs of Sudbury, Dorsey of Iroquois Falls, Crowe of Schreiber, McKay of Reddit, and Sheahan of Chapleau. In four of these no typhoid developed, either amongst the inoculated or uninoculated men. In one case, in which eighteen men had been attacked by the disease within a few days, no further cases developed; in another several cases developed amongst the non-inoculated members of the camp, but none amongst the inoculated members. Dr. Bradley, of Creemore, used the vaccine in five different families, in which cases of typhoid had occurred, with the result that no further cases developed after the vaccine had been used. Dr. Beck, of Port Arthur, also inoculated the members of a family during an epidemic of typhoid, none of them contracting the disease. Dr. Graham inoculated the nurses in the Children's Hospital, Toronto, owing to an outbreak of typhoid among the nursing staff, with the result that no further cases occurred.

During the past year 4,700 further doses of vaccine have been sent out by the Public Health Department, about half

this quantity being supplied to physicians in charge of construction camps, and the other half to physicians for use amongst private patients. No reports have been received with regard to this.

In addition to the work done with the vaccine supplied by the Public Health Department, during the last two years Dr. Ross has inoculated the nurses and medical students at the General Hospital, with the result that only one case of typhoid has occurred there in this period, and in this one case the disease was of slight severity.

In the United States also antityphoid inoculation has been used to a considerable extent in hospitals and institutions with the object of reducing the incidence of typhoid, in all the cases reported with considerable success, and in some with the most striking results. Thus Dr. Richardson vaccinated the nurses at the Massachusetts General Hospital when there were cases of typhoid fever in the wards, with the result that for the first time in the history of the institution there was not a single case amongst the nurses or attendants at the hospital.

It is therefore definitely established that immunization against typhoid fever is a practical measure, and that, from the point of view of protection, it is practically analogous to vaccination against smallpox. Its usefulness is increased by the fact that it appears to be harmless, and that the reaction which it produces is not so severe as to disable the individual for any length of time. It is thus an ideal prophylactic agent for use in the army, and, although there are perhaps not such urgent reasons for its employment in cities, there is no doubt that it would tend to considerably reduce the incidence of typhoid in all who are liable to be brought into contact with persons suffering from the disease, in workers in industrial villages or towns, in those whose occupation renders it necessary for them to be continually travelling about from place to place, or in an epidemic of typhoid.

I will conclude my remarks by a brief reference to another discovery which we chiefly owe to Sir William Leishman, namely, that of the Leishman-Donovan bodies, which were discovered by him and Dr. Donovan in 1904 in Kala azar and similar tropical diseases. The fact that the two varieties of this para-

site, the one occurring in the severe and usually fatal disease known as Kala azar, and the other in the condition known as Oriental sore or Delhi boil, appear to be antagonistic, suggests the possibility that with further research it may be practicable to obtain more or less immunization against Kala azar by inoculation with a vaccine obtained from the parasite of the less serious and dangerous disease.

I will ask Col. Sir. Wm. Leishman to address you upon Typhoid Inoculation.

Colonel Sir William B. Leishman, Professor of Pathology, the Royal Army Medical College, London, then delivered an address on "Typhoid Inoculation," the following being an abstract:—

Sir William told of the difficulty owing to the storm of getting to Toronto and of the pleasure it gave him to visit this city. He related shortly the history of his association with Sir Almroth Wright and told of his working unofficially in Sir Almroth's laboratory at Netley at the time when he had just introduced the system of inoculation for the prevention of typhoid fever.

Sir William Leishman said: At that time a big epidemic of typhoid broke out in Baring Asylum and as Sir Almroth was just going off to India as a member of the Plague Commission and had to leave England in a few days his assistant, now Sir David Semple, took his place to carry on the inoculation. Sir David Semple was incubating Malta fever and he collapsed. Then Sir Almroth asked me to go down and carry on the work. This first introduction to the subject certainly was a very valuable lesson to me.

You must all be familiar with the strong arguments against inoculation in the shape of the negative phase. This phase explains itself very fully. Those who believe in this say that there is a moment following inoculation in which the resistance to infection is not only not increased, but actually lower. So that if during that moment a person came in contact with infection he would be more likely to contract the disease than

an uninoculated person. If ever one should encounter that phase anywhere it would have been in this asylum. Here vaccine was employed in large doses and the result was that in the inoculation of nearly one hundred attendants in the Asylum, among others going down every day with the disease and a good many dying, not a single inoculated person contracted enteric. This made on me a strong impression, confirmed since, that there is no practical danger of the negative phase with typhoid inoculation with dead typhoid cultures. That argument against inoculation is brought forward even now. Many colleagues in England inoculate when there is no typhoid about, but never dream of inoculating in the presence of an epidemic. Many are still of this opinion, and this has been the hardest argument to fight down. Of course if this had really been the case it would have limited the use of typhoid vaccination largely in India, as enteric is found in every state of the country; and we could not have dared to inoculate there if this statement had been true. We believe that there is no such thing as the negative phase. We advised inoculation in India with the results I will show you.

On Sir Almroth retiring his mantle fell on my shoulders. We had a larger opportunity of testing typhoid vaccination in the Boer War, where we tried to get good statistical information. In war it is very difficult to get that information from the fact that in active service statistical information is impossible to get. Documents get lost, the men responsible for them die and your figures are in chaos and such figures as do come to light are contradictory. Some of the figures we got were good, some were not very good and some were actually bad. That being so the Army Council decided that typhoid inoculation must be discontinued in the army until we knew more about it.

For the purpose of learning more about it, there was appointed a commission of experts, so called, for I happened to be one of them. Their function was to get information in regard to all that was known of the subject and to conduct further research with a view to the improvement of the vaccine. This committee is now dissolved, having presented their final report.

Their report recommended the universal adoption of typhoid vaccination in the army. This was gratifying to me because it was an extraordinary up-hill fight, as vaccination had fallen into bad repute. The war officials, however, have not made it compulsory. I hope the day will come when our army following the example of the American army will make it compulsory for the soldier to be inoculated either in peace or in war. It is a many sided question.

The nature of the vaccine we employ is a sterilized broth culture of the typhoid bacillus, sterilized, that is, killed, and we employ, as a sterilizing agent, heat. You must not parboil the bacteria as we used to do in the olden days of the Boer War, that is, you must not overheat it. We have learned that this overheating destroys the effectiveness of the vaccine as an immunizing agent. We employ the lowest temperature at which we are certain of killing the bacteria in one hour and that is 53 degrees centigrade. The organism we have selected for that purpose is the strain alluded to by Dr. Hamilton. We selected this haphazard at first. I remember the post-mortem at Netley from which I isolated that bacillus. It was from the spleen of an undistinguished soldier called Rollins who died there many years ago. I was on sufficiently intimate terms with a clergyman as to suggest to him a subject for a text of his sermon, and thought he could have no better one than the case of that soldier, Rollins. He died of a preventable fever, but his death has been the means of saving hundreds and perhaps thousands of lives. This strain from Rollins, though selected haphazard, happened to be a good one. Strains differ in their property of giving rise to antibodies. This one is excellent for that purpose. It is more suitable than a great many others we have tested against it. We always add a certain amount of antiseptic to our vaccine and again I should like to emphasize the necessity for this in regard to typhoid or any vaccine, for the purpose of insuring subsequent sterility. One would be a criminal if one did not send out sterilized vaccine but you cannot make it remain sterilized in other hands unless antiseptics are added. There are only too many instances where this has been neglected. A plague vaccine in India became infected with tetanus germs with terrible results.

Scarcely less important is the question of standardization. We standardize our vaccine by counting the bacteria. With our present knowledge that is the most effective way in which we can proceed. An ideal method of standardization is not yet discovered. We carry out our method the best we can in regard to technique. We use always the same strain and count the germs so that we shall get the same results with regard to reaction and with regard to protection in the successive batches of vaccine prepared for use. Beyond that, however, one cannot go, for though we standardize the vaccine we cannot standardize the person we are going to vaccinate. Different individuals differ very much in individual susceptibility. We cannot, I think, advise especially further precautions, such as analyzing the blood of the individual to see if he is especially susceptible to virus or not. From my own experience I am led to the conclusion that when an individual shows exceptionally severe reaction to vaccine, that individual is not so likely to be effectively protected as one who shows ordinary reaction. Indeed, he is more likely, if exposed, to contract the disease. I have seen cases in which this has been well shown, as in the case of a British officer who had a very severe reaction and subsequently within a year or eighteen months had a very severe attack of typhoid in Africa. He nearly died and two years afterwards he had another attack of enteric. He was very susceptible to the typhoid bacilli whether they were dead or alive.

We employ in our dosage two successive inoculations, first a dose of five hundred million bacteria; second, double that or one thousand million. We separate these doses by an interval of ten days. This interval is not fixed haphazard but is the result of careful experiment which has shown this to be the most suitable length of time between two doses. A third dose would be better, possibly four would be better than three, but in the army there are reasons which make it impossible to go beyond two doses. In the American army where they have had the good sense to adopt the compulsory system they tell their men they have to have three doses.

Following the question of dose is the question of reaction. The vaccine is given by a hypodermic injection, and results in

an area of tenderness and redness about three inches in diameter about the site of introduction of the needle. This is sometimes painful and generally tender on pressure. This local reaction reaches its maximum in eighteen to twenty-four hours after inoculation and then subsides. There is nothing like the disturbance which follows an ordinary vaccination against smallpox. In exceptional cases the glands of the axilla become slightly enlarged and the lymphatics injected, but this generally subsides rapidly. The symptoms of the constitutional reaction are fever, and sometimes a certain amount of nausea and general feeling of malaise. The fever rarely exceeds 101 degrees, the average is a fraction over a hundred and a large percentage of inoculated individuals show no temperature at all. There are, however, cases which show a much more severe reaction than that and where the temperature may rise to 102 or over and the individual feel out of sorts for perhaps three or four days. In several hundred thousand inoculations which have been done with our vaccine I am glad to say no dangerous results have been reported and no deaths. It is a perfectly safe procedure even if reaction is sometimes severe.

In connection with this question of reaction there are a great many other typhoid vaccines than the one devised by Sir Almroth Wright and improved by myself and my colleagues. This is only one but it is the pioneer, the one which in early days was employed most largely and is the parent of the one now used by our colleagues of the Army Medical Service of the United States. Many other vaccines are in use but very few of them have been used on so large a scale.

To decide whether a vaccine is good or bad the only clinical test is whether it will protect from typhoid fever. Arguments in favor of these vaccines are mostly confined to laboratory experiment and though convinced from that point of view I will not give up our own till I see another vaccine giving better statistical results. The living vaccine of Befredha is perhaps the best. I just mention this particular one because it is much advocated by those who bear the greatest name in bacteriology. There is a grave disadvantage to its use, even if it is one which gives a higher degree of immunity than our dead vaccine and that is because it is a living vaccine. A living typhoid bacteria,

under the skin even if attenuated and even if we know that such a procedure is perfectly safe and will not produce an attack of typhoid fever from the point of view of widespread use, is not advisable. We can never safely proceed to issue a living vaccine widecast over the country. It may get into water, etc., and do harm, we therefore adhere to the dead vaccine instead of the living one, even if the latter should be slightly better in results.

In regard to the duration of immunity conveyed by our vaccine, we have not as precise information as we would like. It is difficult with a large floating population as an army where men are going to the rear and batches are coming to take their places, to follow the histories accurately. From the knowledge we have our vaccine conveys immunity for about two years. After two years or better eighteen months we should revaccinate. Our soldiers in India are inoculated after that lapse of time. Here I would like to state my personal view. The usual criterion which is adopted of testing blood for the presence of immune substances is not necessarily accurate. I have good reason to know that the individual may lose all trace of demonstrable bactericidal substances and agglutinins within six months after inoculation and may still be protected against infection. Our tests for these substances are at best somewhat crude. At present, even if these substances are not found when we test the individual some eight months after inoculation we are not entitled to say he is not protected.

What have vaccines done? It may be of interest to you to learn our results in the case of our army in India. In the case of inoculation in the army, we have to deal with it from two points of view, protection in peace and protection in war; these are very different problems. In peace in the foreign service of the army, typhoid fever has been the most serious trouble against which we have to fight. As an example of this, the incidence of enteric of our army in India, where there are 73,000 troops on an average from the year 1890 and up to the year 1905, was an average of from 1,500 to 1,600 cases of enteric every year in this garrison, and as regards deaths you are fortunate if you can keep the typhoid rate under 25 per cent. 400, 383, 443, 536, 637, 348, etc., are yearly numbers of deaths. That means

we were losing in these years practically half a battalion by death from enteric in India every year.

I need hardly quote to you the results of typhoid fever in war. One need only turn to our own Boer War, where out of 380,603 troops we had 57,684 cases and 8,022 deaths from enteric fever in three years. That incidence is appalling, especially if one contrasts the 8,022 deaths with the total number of deaths from those either killed in action or who have died in other ways. Here the total number of deaths from other causes than typhoid was 7,702, a less number than that for typhoid alone. The Spanish War of 1898, a recent campaign between two civilized powers shows precisely similar results. The same thing will happen if any two powers will engage in a war, they will take typhoid fever with them, either in incubation cases or still more deadly in typhoid carriers or will contract the disease in the country they invade. Given a few sources of foci of infection and it will under the conditions of field service spread like wildfire. It has always done so and will always do so unless we take precautions against it. In these recent campaigns every advantage we could think of for improved sanitary appliances, everything we could think of in peace was brought into service. Good water was provided and we sterilized the excreta and yet we had this lamentable result.

What has typhoid inoculation done to better this condition? With a view to getting the results exhibited statistically, we tried what was called the test unit of experiment, that means that we selected, with approval of the War Office, as soon as we could such a vaccine as could do no harm and one we believed would do good. We took the responsibility of recommending it. They accepted this and allowed us to appoint a medical officer to every unit that left England for foreign service. This officer had a special course of training at the Army Medical College in modern methods of diagnosing fevers, methods of blood analysis, etc. These officers after this course were attached to these units. They had to take on them the part of lecturing to the men and to convince the soldiers that they should accept this offer of protection. Their chief task when accompanying these units abroad was that they should keep

accurate record of the soldiers inoculated and see that every case of continued fever in each battalion was investigated by blood culture or other means with a view to deciding if it were enteric fever, or if not to find out what fever it really was.

During a period of experiment lasting five years, twenty-four such units were dealt with and the report of twenty-six medical officers collected into tables, and summarized as follows:—For these twenty-four regiments the average period of exposure to infection was dated from the time of their arrival in tropical stations till the time we ceased to keep records; the average period was one year and eight months. The number of men who were in the experiment concerned was 19,514. Of the men who were vaccinated among this 19,514, the number was 10,378, and among these 10,378 in this average period of one year and eight months were fifty-six cases of enteric, five of whom died.

Contrast that with the uninoculated group. The smaller group, 8,936 practically 9,000 against the 10,000. In this smaller number there were 272 cases and forty-six deaths. That is, nearly as many cases died of enteric in the non-inoculated group as contracted infection in the inoculated. Figures are not true indicators of what typhoid inoculation can do, for we figure among these, every case that was inoculated, whether properly inoculated or not. A very considerable proportion of these cases were inoculated with ineffective vaccine, superheated vaccine. In other cases soldiers who contracted enteric had been inoculated with vaccine kept too long and which must have lost all potency. These are all lumped together there, and if I excluded these and those soldiers who got one dose instead of two doses, if I put these all outside, the table would have worked out ten to one instead of five to one in favor of inoculation, as it has worked out in our experiment. It is, however, the best experiment on record although better figures are shown in the American army and in the French army. In this experiment the external conditions were more accurately kept than in any other similar experiment. In each of these units soldiers were living under the same conditions as regards food and water and as regards exposure to infection. The two groups of inoculated and non-inoculated were strictly comparable. We found it a

better test than in the case of groups of men altogether inoculated. I know this from our French colleagues and they quite agree that these figures are the best evidence we have in support of inoculation. We have had very much better figures than those in individual units exposed to infection within comparatively short time of inoculation, that is within six or eight months afterwards. There the results are more instructing. One is not exaggerating to say those results are comparable to the results given by smallpox vaccination. Immunity tends to die away and as the time approaches two years the individual should be re-inoculated.

The effect of this system in India, only recently extended to the whole garrison, shows from the year 1907 a continual growth in the yearly number of those inoculated. This growth has been most gratifying and now has reached close on ninety-five per cent. of our whole garrison in India and that. when on a voluntary basis, says a great deal for the British soldier.

Leading down from the year 1907 we find that in 1907 there were 1910 cases and a large number of deaths. In 1908 there were 998 cases and 191 deaths. In 1909 there were 616 cases with 112 deaths. In 1910 196 cases and 45 deaths. In 1911, 170 cases and 22 deaths, and in 1912, 118 cases in the whole of India as contrasted with the figures of some 2,000 of a few years before. Now that ninety-five per cent. of the soldiers are inoculated, it is much more difficult to draw comparisons between results for those inoculated and those not inoculated because of the great disparity between the two groups. The incidence is now confined really to small groups of non-inoculated cases.

I do not wish to minimize the value resulting from increased study and increased application of the study of hygiene and sanitation. I may remind you that in India now when a soldier contracts enteric he is not allowed to return to barracks until he has been thoroughly tested bacteriologically. He is sent for convalescence at once to the typhoid convalescent depot of which there are two in India. There he is tested from day to day till we are certain he is not a typhoid carrier. No carrier who develops as carrier during service in India can be

missed by this system and that is an enormous gain, guarding against the spreading of infection. Now the carrier group is ordinarily not over three per cent. and last year only two or three carriers were found in the whole of India.

There are two more general questions I should like to touch on, first the use of typhoid vaccine and the treatment of cases of enteric, second the application of typhoid vaccine to the civil population as a protective measure. The treatment of typhoid fever by inoculation is beyond the stage of mere projection and interesting experiment. Treatment of cases of enteric by typhoid vaccine is thoroughly scientific and is the only scientific method to treat these cases.

This is not a new thing and I do not claim any credit for it, but I have strongly advocated its use among my brother officers. Given a proper vaccine and given proper doses of vaccine you will approach a case of typhoid fever with very much more confidence than you have in the past. I have seen grave toxic cases treated in this way change their character completely in a period of twenty-four to forty-eight hours, not in the way of temperature coming down straight to normal, and the attack of fever becoming aborted, but the temperature running along at a much more moderate level and above all in a change for a better condition of the patient, who loses the typical typhoid facies, the anxious expression we all know so well. He becomes a more cheerful individual, he no longer looks like a man dangerously ill. I have known soldiers to ask for the inoculation to be repeated. That is a good testimony of its value in treatment. The temperature following inoculation usually rises in twelve hours to a slightly higher level than one would expect to be present in an uninterrupted case. The local reaction is very slightly in evidence. Following this rise within twelve hours or so the temperature drops to a lower level than one would expect in an ordinary case. The temperature at first goes a little higher then goes down lower than you expected, and only by degrees comes up to the old level. Another inoculation brings it down a little lower and when two or three doses have been administered it comes down to normal and remains normal.

The duration of the attack is not greatly shortened but there

are fewer complications and relapses are very much more rare. Monsieur Natelle's published account of his collections of the writings of those who have been working on this subject, some forty papers published in different countries shows what this method of treatment is doing. These cases of Natelle's thirteen hundred and ten in all had a mortality of only five per cent. and here there were cases treated by doses of vaccine that were useless; some were too small and others, one could have no confidence in. I am convinced that with an effective vaccine the mortality would be one or two per cent. If you have opportunity of trying this treatment, try it and you will be rewarded. One should start with an initial dose of two hundred million of the ordinary prophylactic vaccine and repeat the dose on the third day allowing one clear day as an interval. Repeat again on the fifth day using on the third occasion say five hundred million. I do not think that a smaller dose than that will have any effect at all. There is still much information required on this subject and we must have far larger figures to make this information accurate. The treatment is harmless and is scientific, the most promising treatment in typhoid we possess.

As to the application of typhoid vaccine in civil life, it seems to me that if we control typhoid in the army in peace and we hope to do so in the future in war, that you in civil life should not hold your hands from the benefit of such typhoid vaccination, especially if you are threatened or exposed to typhoid in your immediate surroundings.

Measures of protection against typhoid such as improved water supply, an improved sanitation generally, instruction of the people as to the care necessary to prevent this disease is an excellent aid but does not take the place of typhoid inoculation. This vaccine is a very simple thing to prepare. I have had brought to my notice in several ways during the few days spent in Canada that you suffer largely from typhoid in this country. For example Ottawa has had a severe epidemic and typhoid is at large in various parts of your country districts. If you could organize a campaign against typhoid to persuade people likely to be exposed to infection to be inoculated, you would be doing great good to this country and to science in

general and in that way accumulate information that would convince everyone.

I was bold enough at Montreal the other day to suggest that the authorities should vaccinate the whole population. That seemed a tall order, but I do not see why it should not be done.

We do not know when we may catch typhoid ourselves, why throw away the chance of preventing such a happening? Thinking over the thing from that point of view you will have three sets of people to convince. First and most important yourself and it is up to you to convince the second set, the authorities, and thirdly, the people you are going to inoculate. The authorities are the hardest nuts to crack. You may have trouble with them but not with the people. The latter are extraordinarily amenable to the influence of the medical man whom they trust. If you are convinced and believe typhoid inoculation is a good thing, it will do you no harm if you inoculate yourself except to cause a sore spot or sore head for a day or so. If you inoculate yourself very few people will refuse inoculation when it comes to their turn. Of course there is a prejudice against this form of treatment like there is against vaccination for smallpox, but these prejudices vanish in the presence of danger. When the relatives and children are contracting enteric their friends will fly to you and you will have no difficulty to get them to accept treatment.

I believe personally most strongly in the benefit to be derived from this method of treatment and if I may give you advice should urge you to use it to the utmost in adding to the weapons which you use fighting this disease.

The Lieut.-Governor of Ontario, Sir John Gibson, rising to propose a vote of thanks said: Doctor Hamilton and Gentlemen—I had some hesitation in coming here this evening to listen to the lecture in view of the fact that I was not a medical man that would form one of the audience of experts that could appreciate a lecture that might be unintelligible to the ordinary individual outside the profession. You, Sir, disabused my mind of the necessity of my laboring under any such difficulty. It has been, indeed, a great pleasure to listen to the lecture which has just been delivered by the eminent gentleman of your pro-

fession, and I think that even the most simple-minded layman could very easily follow all that was said and thoroughly understand it. In the first place one could not help being struck by the very clear manner in which the subject was treated, perfectly lucid, and perfectly intelligible throughout.

The subject is one in which everyone is interested. Prevention is better than cure is a very old maxim, but at the present time a maxim which is being put into practice more than ever in the past. A generation or so ago tremendous strides were being made in surgery, and I think it used to be said some years ago that medicine was at a standstill, while marked advances were being made in surgery with incalculable benefit to the people. During the present generation I think, medicine has been picking up. This is an age of germs, so to speak, an age in which there is real investigation into the cause of disease, an age of search for, and discovery of, the bacteria causing individual diseases.

One may be pardoned for being somewhat surprised that the delay in the new use of vaccination has been so long. It is a long time since vaccination for smallpox has been in general use. It is a long time since its efficacy has been admitted. Therefore, one is somewhat surprised that investigation should not have returned to similar treatment for other diseases than smallpox before this.

This is an age of progress, and I confess that I have this evening been extremely interested as well as surprised by the progress which has been made with reference to the treatment of this familiar disease, typhoid fever. The name is as familiar as any name could possibly be, and has been so to me since my childhood. There was in the old days when I was young another disease which was called typhus, a pretty common disease at one time. Cases of this deadly disease do not now appear. Why I don't know. Whether it has gone out of fashion or whether it was really something else I do not know, but I never now hear of a good square case of typhus fever. It is as interesting as it is surprising that there is evidence such as has been laid before us of a completely efficient and effective method of dealing with typhoid fever. I take it that the enteric fever which we hear so much of during military campaigns is

really typhoid. There is no doubt that more lives are lost as in the South African campaign as a result of enteric fever than from those killed on the field of battle. This is an awful thing to think of if typhoid is a preventable disease. Those who have been engaged in this thorough investigation of this matter, and who are endeavoring to spread the knowledge of how that disease can be combatted successfully are deserving of the gratitude of the whole world. The evidence which was given by the learned lecturer as to the comparative results in the Indian Army is striking and conclusive. One cannot, therefore, fail to be extremely interested in a matter of such practical and widespread importance as this subject really is. I confess to be unable to talk about it in as clear or effective a way as some of yourselves. I would like, however, in moving a resolution of thanks to Col. Sir William Leishman, to join with the medical profession in the welcome which I am sure is being accorded him by not only the medical profession but by the community of this country. It is a pleasing thing, that, as days go by, years go by, the number of eminent gentlemen from the Mother Country who visit us is becoming greater and greater. The distance between the Mother Country and Canada is being gradually annihilated. We are becoming closer neighbors. Those of us who have gone from Canada to England in recent years during the past decade or two, have been receiving a very hearty welcome there. The disposition on the part of the people of the Mother Country to become more closely and more intimately acquainted with us, and to become more closely connected with us, has been apparent, and I hope that it may be said on the part of Canada and the Dominions generally that we are feeling more and more disposed to give a very hearty welcome, an open-armed reception to those that come over from the Mother Country to visit us. We are after all the same people—citizens of the same Empire—our sympathies are entirely the same—there is everything in common between us and the Mother Country and one cannot therefore, in moving this resolution of thanks to the eminent gentleman who has addressed us, feel but, after all, he is one of ourselves, and we are extremely glad to see him."

Dr. J. T. Fotheringham, in a short speech seconding the

vote of thanks proposed by the Lieutenant-Governor, said:—"Mr. President, Your Honor, Ladies and Gentlemen,—In rising to second the motion for a vote of thanks, which was so pleasantly proposed by His Honor, I will make three remarks only. I apologize for what I am about to say to those of you who have not the honor to wear the King's uniform, but I have no apology to make to my brother officers.

"We have here in Col. Sir William Leishman a good example of the value to the country of the trained medical officer. We, in Canada, are the daughter body that owes the debt of gratitude to the parent body. We who belong to the daughter body in this country feel that we are in a small way spreading the light of sanitation and hygiene among the people of this country, in our work in the military camps year after year.

"No farmer can come and pass the time of training at camp without learning the rudiments of sound rural hygiene. I don't think any man will go back to the farm with the idea that it is quite right and proper to have cattle drinking from a trough one end of which is under the spout of the house pump, and so allow excreta to be thrown about within four to ten feet of the well in which the water is but a short distance from the surface.

"Secondly, I would like to ask any fair-minded listener to Sir William's remarks whether he will not join with me for some form of universal service in this and every country under the British Crown.

"I would like to point out that we owe a debt of gratitude to the army surgeon. In the corridor of the Toronto General Hospital may be seen a portrait of the late Dr. Widmer, who settled down in 1815 in the village of York. He represented a type of all that is good in the British practitioner of to-day. He had a high regard for professional propriety and the amenities of social intercourse. For forty years he was chairman of the board which admitted men to medical practice in Upper Canada.

"We now have in Canada a population of about eight million. When America had this number of people in her domain they were not within one per cent. of being as far advanced medically as we are now. At that time they had only four

medical schools. They had only two medical libraries in the whole country, one in New York, the other in Philadelphia. Then, living along the fringe of those woods that line the Great Lakes were the inhabitants of Canada, and the army surgeon among them was the authority of the day. These men had come from England to practice medicine, and were transporting to this rude country the ideals of the Edinborough, Dublin and London schools, derived from teachers like Cheyne, the Hunters, and the two Bells. We have in Sir William Leishman a worthy follower of men of this type, and I have great pleasure in seconding this vote of thanks to him."

In reply, Sir William Leishman said: "Mr. Chairman, Your Honor and Gentlemen.—You have heard me quite long enough. I only wish to thank you all for the cordial and kind reception to-night, and I assure you it is a great personal pleasure to me to have this acquaintance with you."

Dr. G. Sterling Ryerson did not desire to make any prolonged remarks. He wished to emphasize the point brought out by Col. Fotheringham and that was the very great debt the profession owes to the army medical services. They owe it to men like Sir William Leishman who has demonstrated what can be done in the prevention and treatment of typhoid fever, to Ross who has done so much in malaria and tropical fevers, and to the American officer who has been so successful in the treatment of yellow fever. In conclusion, he would mention that the visit of Sir William to this country is due to the foresight of the Director-General of the Medical Service of Canada, Col. Jones. We are to-day indebted to him for this intellectual treat and for the important facts Sir William has brought out.

Col. Jones thanked Col. Ryerson for his kind remarks with reference to himself and the Service which he represents. "When we brought Sir William to this country we had two objects in view. One was to instruct our own officers in the very difficult problem of typhoid inoculation because, in spite of what Sir William said, it is a very difficult matter. We felt we had done all we possibly could to advance military hygiene and the application of sanitation in the militia of Canada, but no matter how careful we may have been, what precautions we might

take, we realized that we could no more control typhoid fever by sanitation than you could control smallpox by sanitation. It was to that end that we brought Sir William out here. We also realized that we were dependent altogether upon the civil application in order to render our army, if we at any time mobilized, immune from typhoid fever. There would be no time when mobilizing to vaccinate for smallpox and typhoid fever.

"It is necessary that the community shall be protected by typhoid inoculation so that if mobilization takes place, the young men who are conscripted to service in the Canadian army, on mobilization will be protected from that deadly scourge of the armies—Typhoid Fever."

The regular meeting of the Academy was held on Tuesday, March 3rd, at 8.15 in the Academy Building, 13 Queen's Park. At that meeting Dr. Robert Abbe, of New York, delivered a splendid address on "The Therapeutics of Radium." The auditorium was filled to overflowing, the accommodation not being more than half enough for those desiring to be present, many of whom had to sit on the stairs. We think we are safe in stating that no more interesting evening has been spent since the Academy of Medicine opened than that of March 3rd. We regret our inability to reproduce a large number of the lantern slides exhibited that evening. Dr. Abbe is a well-known authority in the United States on the use of radium and it was with peculiar pleasure that he was welcomed to Toronto. He was the guest of Dr. and Mrs. W. H. B. Aikins. We have arranged to report Dr. Abbe's splendid address in our May number.

SOCIAL SERVICE CONGRESS, OTTAWA, MARCH 3-5, 1914

The First Canadian National Social Service Congress was held in Ottawa, March 3rd, 4th and 5th. It was held under the auspices of the Social Service Council of Canada and the National Committee for the Suppression of the White Slave Traffic. In these two federations the following Canadian Bodies are officially represented:—The Church of England; the Baptist Church; the Methodist Church; the Congregational Church;

the Presbyterian Church; the Roman Catholic Church; the Trades and Labor Congress of Canada; the Salvation Army; the Evangelical Association of North America; the Dominion Grange and Farmers' Association; the Canadian Purity-Education Association; the National Council of Women.

Delegates attended the Congress from all Church Courts, Labor Organizations, Farmers' Granges, Local and National Councils of Women, Women's Christian Temperance Unions, Young Women's Christian Associations, Young Men's Christian Associations, Local Churches, Local Temperance Societies, Provincial Moral and Social Reform Councils and other bodies in sympathy with any or all of the reforms considered at the Congress.

Almost 500 delegates were in attendance.

The following subjects were considered during the Congress:—The Weekly Rest Day and National Well-being; The Church and Industrial Life; The Value of the Social Survey; Child Welfare; The Problem of the City; The Problem of the Country; The White Slave Traffic; its extent; its consequences; its causes; its cure; The International Treaty for the Suppression of the White Slave Traffic; Immigration; Gambling; Political Purity; Temperance and Prohibition; The Federation of the Churches and other Bodies for Social Uplift; International Peace; The Care of Defectives; The Care of Criminals; etc.*

"My note to-night will be an optimistic one," said Professor Graham Taylor, of Chicago, speaking at the Social Service Congress. "On this occasion, which signifies a great social awakening," Prof. Taylor said that it was possible both to "damn people into perdition and to hope them back into the image of the Father." Man was not sacred because of what he was, or is, but because of what he might become. When men made up their minds to pay the cost of human redemption, human beings were redeemed. The life of God in the soul of man, said the speaker, was a constant quality, before which disappeared boundary lines and national distinctions.

*We regret that, owing to an accident, we are unable to give our readers a full report of the Congress, as we expected, though no doubt they will be able to secure this through other channels.

"The Ethics of Gambling" was the subject of an address by Ven. Archdeacon Cody, rector of St. Paul's Church, Toronto. The speaker incidentally mentioned former Inspector Duncan's estimate of handbook business in Toronto as $9,000,000. as emphasizing the widespread nature of the evil. The legitimate speculation of business and experiment are distinguished from illegitimate speculation or gambling, because: The former demand and develop the highest activities of men's judgment and reason; the latter tends to eliminate them. The legitimate enterprise is really an act of faith in the order and rationality of the universe; not an appeal to chance. It serves to guard against the element of uncertainty, whereas the very fascination of gambling depends on the cutting out of the element of reason.

A bet may be defined as a stake upon chance for gain without labor. Gambling is contracting to give or receive money without a just equivalent in exchange and upon conditions which are beyond the foresight or control of the parties engaged in the transaction. It is the determination of the ownership of property by appeal to chance. It is wrong because it imperils the moral life of the individual and the well-being of society. When a man says he does not care for a game on which no money is staked, he has ceased to be a whole-hearted lover of sport. No money issues were allowed to corrupt the athletic contests in the heroic days of Greece.

"Gambling," said Dr. Cody, "is the acme of human foolishness. It is on the folly of those who bet that the bookmaker lives, and lives uncommonly well."

"Although we cannot make men good by Act of Parliament, we can remove many temptations and give a better opportunity to men to do good. Legislation might crystallize sound public opinion and make it more difficult to harm oneself or injure the community. The publication of betting news, gambling on race tracks, the wide-spread institution of the handbook, were proper subjects for legislative action. The business of gambling on races was forbidden everywhere but on the race track, and at all times except when the race was on. The proposed amendment to the criminal code was to extend this prohibition and make it impossible to exploit this vice everywhere and at all times.

THE ASSOCIATION OF OFFICERS OF THE MEDICAL SERVICES IN CANADA — SEVENTH ANNUAL CONVENTION

The Seventh Annual Meeting of this Association was held in Ottawa, as usual, during Military Week, on Tuesday and Wednesday, February 24th and 25th. The delegates were most comfortably housed and the meetings held in the Chateau Laurier. One hundred and two officers registered from points as far apart as Halifax and Vancouver. Every province was represented, and the contingent from Toronto, in particular, was large and merry.

The officers for this year were:—

President—Lt.-Col. J. T. Fotheringham, A.M.C., Toronto.

1st Vice-President—Lt.-Col. R. T. McDonald, R.O., Sutton, Que.

2nd Vice-President—Major G. M. Campbell, Halifax, N.S.

3rd Vice-President—Lt.-Col. H. R. Casgrain, Windsor, Ont.

Secretary—Major T. H. Leggett, A.M.C., Ottawa.

Assistant Secretary—Capt. Neil McLeod, A.M.C., Ottawa.

Treasurer—Major F. McKelvey Bell, Ottawa.

The following programme was carried out, almost as it stands:—

Tuesday, 24th February, at the Chateau Laurier.

10.30 a.m.

Registration.
Meeting called to order.
Treasurer's Report.
Reports of Committees.
Reports of Local Branches.
Correspondence.
New Business.

3.00 p.m.

President's Address. "Some Historical Notes on the Medical Service in the British Army."

Paper: "The Medical History of the Siege of Quebec," by Col. G. C. Jones, G.G.H.S., Director-General of Medical Services.

Address by Colonel Sir William Leishman, F.R.C.S., K.H.P., Professor of Pathology at the R.A.M.C. College, London, Eng.

Report of Meeting of Clinical Congress of Surgeons of North America, at Chicago, in November, 1913, Lt.-Col. A. T. Shillington, A.M.C.

Election of Officers.

General Business.

8.00 p.m.

Annual Dinner, Chateau Laurier.

Presentation by H.R.H. the Governor-General of the Ryerson Cup to Major Bentley, O.C. No. XIV. F.A.

WEDNESDAY, 25TH FEBRUARY.

10.30 a.m.

Symposium: "Winter Campaigning in Canada." Col. G. Sterling Ryerson, Lt.-Col. Bridges, P.A.M.C., Lt.-Col. H. R. Duff, P.A.M.C., Lt.-Col. A. E. Ross, A.M.C., Major L. Drum, P.A.M.C., Major Jacques, P.A.M.C.

1.00 p.m.

Luncheon for the members by invitation of the President, Lt.-Col. J. T. Fotheringham, A.M.C., at the Chateau Laurier.

3.00 p.m.

Address by Col., the Honorable Sam Hughes. Minister of Militia and Defence.

Paper: "The Training of Hospital Orderlies," by Nursing Sister MacDonald, A.M.C.

Paper: "The Importance of Early Diagnosis in Syphilis," by Capt. F. S. Patch, A.M.C., Montreal.

Paper: "Water Supply for Troops, August, 1913, Manoeuvres, 1st Division," Major D. B. Bentley, O.C., No. XIV. F.A., Sarnia, Ont.

Paper: "The Sanitation of the Panama Canal Zone." Lt. John A. Amyot, Toronto.

Report of Staff Tour of No. 11 Field Ambulance to Carlsbad Springs. Capt. G. P. Howlett, A.M.C.

Paper: "The Examination of Recruits," Major Wallace Scott, A.M.C., Toronto.

Paper: Lt. B. J. Hazelwood, Bowmanville, Ont.

Unfinished Business.

8.00 p.m.

Smoker in the Quarters of No. 11 Field Ambulance, corner Elgin Street and Laurier Avenue.

Oddly enough, the tendency to move in cycles appeared at this meeting, as many of the papers were historical. The president's address and the papers by Col. Jones and Col. G. S. Ryerson and his confreres, who discussed the question of winter campaigning, were practically all historical and most interesting.

The delay in the arrival of Sir William Leishman was much regretted. He was storm-stayed at sea and arrived only for the afternoon of the second day. His ultimate arrival, however, was heartily welcomed by one and all, as it signalized the first occasion on which the Army Medical Service in Canada has had at its annual meeting a representative officially present from the War Office in London, and from its parent Corps, the Royal Army Medical Corps of Great Britain. Sir William's great reputation, both in scientific circles and in the medical service of the world's armies, had preceded him. His charming personality at once won the hearts of all who met or heard him and his visit, quite apart from the very important paper which he read upon the subject of "Anti-Typhoid Inoculation," has already proved to be a great stimulus to the efficiency and ambitions of the medical service in Canada.

The annual dinner held in the Chateau on the evening of Tuesday was attended by almost all who registered, and was graced by the presence of His Royal Highness the Duke of Connaught, K.C.B., whose democratic geniality and kindliness added much to the pleasure of the evening. The president, in proposing his health, offered the respectful congratulations and good wishes not of the Service only, but of the medical profession of Canada, to Her Royal Highness, the Duchess, upon her restoration to health and her courage in return to face the duties of her high position here.

The president's luncheon on the second day was also much enjoyed.

The Minister of Militia, the Adjutant-General, the Inspector-General, the Chief of the General Staff, and various other heads of departments and services testified to the fraternity and good will and esteem with which the other depart-

ments of the Defensive Forces of the Country regard the Medical Service.

This meeting, while being the largest so far held by the Association, was unanimously pronounced likewise the best both from the technical and social points of view.

The former committees were re-elected with unimportant exceptions, the new president being Lt.-Col. R. T. McDonald, R.O., Sutton, Que., and the vice-presidents Major G. M. Campbell, Halifax, N.S., Lt.-Col. H. R. Casgrain, Windsor, Ont., and Lt.-Col. Murray McLaren, St. John, N.B., the genial hard-working president of the Canadian Medical Association for this year.

The Local Committee of Arrangements under Lt.-Col. A. T. Shillington, A.M.C., of Ottawa, as usual saw that all arrangements ran smoothly.

J. T. F.

PERSONALS

Dr. W. H. B. Aikins entertained a number of the medical profession of Toronto at luncheon at the York Club on March 3rd, and again at a private dinner in the evening, in honor of Dr. Robert Abbe, of New York.

MARRIED

Gallie-Hart.—At St. Andrew's Church, Toronto, by the Rev. T. Crawford Brown, on March 3, 1914, Janet Louise, daughter of Mr. and Mrs. S. R. Hart, to William Edward Gallie, M.B., of Toronto.

Sincere congratulations to our brilliant young confrere, Dr. Edward Gallie, upon having won so successfully another prize, this time, love's own trophy, in the form of

"—A heart of gold, of gold,
"Strong and sweet and true."

May Dr. and Mrs. Gallie live long and celebrate many anniversaries of the day on which the sun shone so brightly, and even the cool little breeze "whispered—it is well."

W. A. Y.

COLLOIDAL METAL THERAPY*

Remarkable clinical results have recently been afforded by the colloidal forms of the metals Silver, Mercury, Copper and Iron. They are prepared from their respective salts by an entirely novel chemical reaction and, although resembling solutions in appearance, they are not true solutions, but really suspensions of invisible solid particles. Upon ultra-microscopic examination they exhibit marked Brownian movements aptly described as resembling a bevy of dancing gnats in a beam of sunshine. These products possess remarkable bactericidal and antiseptic properties and whilst non-toxic and non-irritant to the human organism will kill bacteria under all circumstances up to say 40 degrees C. In the presence of Electrolytes even as much as 3 per cent. Sodium Chloride they neither break down nor lose their essential Colloidal condition and hence when injected hypodermically or intravenously they remain stable and are not immediately precipitated by the blood. C. E. A. McLeod, F.R.C.S., in the *Lancet,* February 3rd, 1912, advocates the use of chemically-prepared colloid metals in preference to the electrically-prepared products and refers to the extraordinary results obtained with the former "Even when diluted as low as 5 or 10 parts metal per million and in some cases as little as 1 part of Silver per million proved *fatal* to bacteria in a few minutes. The bacteria experimented with were B. Coli communis, B. tuberculosis, diplococcus gonorrhea, various forms of staphylococcus, streptococcus and many others." Also in the *British Medical Journal* of March 2nd, 1912, reports of bacteriological tests record that no microbe is known that is not killed in laboratory experiments in 6 minutes. The Colloids of Silver and Mercury are remarkably similar in their therapeutic properties, their action depending upon their physical characteristics rather than upon their specific effect as metals. Hence the choice between them is undecided, preference being given to Mercury in cases with a syphilitic taint.

With regard to their uses C. E. A. McLeod, F.R.C.S., in the same article states: "I have treated the following cases with marked and surprising success—Topically—Septic and follicular tonsilitis, gonorrheal conjunctivitis, Vincent's angina, phlyctenular conjunctivitis, spring catarrh. Impetigo contagiosus, acne, septic ulcers of legs, ringworm of body, tinea

* Publishers' Department.

versicolor. Soft sores, suppurative appendicitis after operation (the wounds healed rapidly). Pustular eczema of scalp and pubes, chronic eczema of external meatus of ear with recurrent boils and also chronic eczema of anterior nares. Offensive discharge in case of chronic suppuration in otitis media. bromidrosis of feet and axialle. Blind boils of neck. By injection—Gonorrhea and chronic cystitis (local), boils, epididymitis."

Colloid Ferrum is indicated in cases of extreme chlorosis. simple anemia, debility following pneumonia, influenza, specific disease and surgical tuberculosis. Also in erysipelas, cellulitis, etc., hypodermic injection produces a marked abbreviation of the usual course of these conditions.

In the treatment of growths of malignant and non-malignant origin Colloid Copper has afforded excellent results administered by subcutaneous or intra-muscular injection. The injections are made at intervals of 4 days and from the first the pain becomes less and the growths diminish in size. Detailed literature and samples of these products may be obtained from Messrs. Oppenheimer, Son & Co., Ltd., London, through the medium of their agent, M. Van Zant, Toronto, Canada.

PROFESSORSHIP VACANT

Applications for the Professorship of Surgery and Medicine in the Royal College of Dental Surgeons, Toronto, vacant by resignation, will be received by the undersigned until April 25th, 1914. J. B. Willmott, Secretary R.C.D.S., 96 College Street, Toronto.

NO IRRITANT ACTION ON THE KIDNEYS

YES! Experience goes to show that Purgen is especially suitable in such cases. The irritant action of most of the vegetable purgatives upon the kidneys is well known. With a view to ascertaining its action, Purgen was given in two cases of albuminuria. The patients were given two "Adult Purgen" daily with the usual purgative result, but no increase in the albumen took place, nor was there any microscopical evidence of increased irritation. From this it may fairly be inferred that Purgen may be used as an aperient in renal disease. Purgen was also given in two cases of jaundice in children, in

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Editorials

DIET IN CERTAIN CHRONIC DISEASES

The successful treatment of certain chronic diseases necessitates a restricted diet, rather than the employment of powerful pharmaceutical preparations. Dr. James Adam, in his recently published book (Asthma and its Radical Treatment) states that asthma is due to (1) a toxemia; (2) a lesion in the respiratory tract, usually in the nose. The toxemia is produced by absorption of nitrogenous poisons, associated with an error in proteid metabolism and closely connected with an excess of carbohydrates in the diet. Periodicity is a marked feature—70% of cases being "nocturnal," and 30 per cent. showing "week end" attacks. This author also notes the association of asthma with laryngismus stridulus, recurrent bronchitis of children, paroxysmal sneezing, eczema, urticaria, gout, hay fever, etc. These, he claims, are all due to a toxemia. Dr. Adam describes fully the nasal lesions, which he claims were associate etiologic factors in 77 per cent. of his cases of asthma. He says,

that in asthma the sympathetic nerve centres resemble a powder magazine, to which the nasal lesions supply the "sparks."

Whether the nasal lesions of asthma be results or causes of the asthmatic paroxysm, they should receive surgical treatment, when it is deemed necessary. It is admitted, however, that the general conditions of the asthmatic patient (alimentary toxemia, anaphylaxis) are of far greater importance than any nasal lesion. Hence, when treating a case of asthma, a physician should lay stress on dieting and exercise. Perhaps, he may not go so far as Dr. Adam, who recommends to asthma patients to fast one day in each week. A similar advice, which might obtain a readier acceptance, would be to recommend light, nourishing food, together with the avoidance of solids, after 2 o'clock in the day. Constipation should, of course, be prevented. To promote the excretory condition of the skin thereby encouraging the removal, by the perspiration of extractives, including urea, daily exercise or work should be advised.

Such a method of treating asthma rather fits in with the opinion that this disease occurs in persons who, from heredity, or their own manner of living, are predisposed to gout. The same remark holds good of eczema and psoriasis, both of which occur in the form of irregular gout, and, when founded on a gouty diathesis, require the same treatment as gout. In effect, Dr. L. D. Bulkeley, Physician to the New York Skin and Cancer Hospital, shows, in a recently published book, that he has treated over two hundred

cases of psoriasis, by means of a vegetarian diet, with the best results. In eczema, also, particularly the acute form of that disease, a restricted diet composed of rice, bread, butter, and water has been found most useful. Similarly, the most important feature in the treatment of either form of chronic nephritis is the regulation of the patient's diet; the amount of the proteid element in his food must be considerably diminished. While it is true, therefore, that well tried pharmaceutical preparations may be resorted to, with advantage, for the relief of outbreaks of asthma, psoriasis, eczema, nephritis, a physician who makes it his business to regulate the diet of patients suffering from such complaints will achieve a higher reputation than one who prefers to relieve them only by the use of powerful drugs.

J. J. C.

FATALITIES CAUSED BY SALVARSAN AND NEOSALVARSAN

As a regular physician in Ontario is legally known as one who gives drugs to patients, he should be solicitous to use only such drugs as do good; he should avoid the use of drugs which kill. Reference is made here, of course, to drugs used in medicinal doses; untoward results, due to unusual doses, not being included in this remark. Owing to its high percentage of arsenic (34 per cent.), salvarsan has an undoubted poisonous action in medicinal doses. We have not noticed a fatality traced to its use in Ontario; but, when read-

ing foreign medical exchanges, we have found that references to fatalities caused by its administration in European countries are quite numerous. In a book published in 1913, at Jena, Germany, Dr. Mentberger discusses the arsenic treatment of syphilis. He has collected the formidable total of 274 fatalities, due to salvarsan, which does not include cases occurring in infants. He divides them into three groups: (1) those due to the direct toxic action of arsenic; (2) those indirectly due to this cause; (3) those in which the drug was used, when there were contraindications. The first group comprises 31 per cent. of the total and includes especially cases of hemorrhagic encephalitis, which, as Mentberger points out, is known to occur after poisoning by arsenic and many other inorganic or organic substances. It is interesting to note, that 41 of the fatal cases occurred after the injection of salvarsan in non-syphilitic cases.

In the foreign medical press, we notice that a fatal result from neosalvarsan was reported to the Medical Society of the Hospitals, Paris, January 23rd, 1914, by Dr. Joltrain. It appears, that a second injection, 0.20 gm., had been given to the patient, who was in the secondary stage of syphilis. After the first injection of neosalvarsan, 0.30 gm., a slight Herxheimer reaction had followed. At first, the second injection caused no trouble; but the death of the patient ensued in three days. In a fatality, due to salvarsan, which was reported to the Medical Society of the Hospitals, Paris, by Dr. M. L. Martin, February 6th, 1914, a

cerebral hemorrhage which had occurred in a focus of softening of the brain was revealed at the autopsy. At a meeting of the same medical society, February 13th, 1914, a death, due to neosalvarsan, was reported by MM. de Massary and Chatelin. The patient, a general paretic, had received 30 centigrammes of neosalvarsan and died in thirty-six hours. At the autopsy, intense congestion of the meninges of the brain was found, but no treponemata were found. The kidneys were congested; the suprarenal glands were in a state of advanced putrefaction; it was difficult to say whether or not they had been injured by the injection of neosalvarsan. In a fatality reported at the Royal Academy of Medicine, Ireland, January 14th, 1914, by Dr. Nesbitt, death took place twenty-five hours after an intravenous injection of 0.4 gm. of salvarsan. At the autopsy, the most important lesions found were multiple gummata of the liver. In the absence of signs of arsenical poisoning, or other apparent cause of death, the theory of excessive liberation of toxin was advanced to account for the fatal result.

When about to use one or the other of these poisonous drugs, a surgeon should study the contraindications, many of which, however, cannot be ascertained beforehand. Notable contraindications are: a general exhaustion of vitality, following a severe syphilitic poisoning, especially in persons already suffering from chronic diseases of the kidneys, and from chronic degeneration of the heart muscle; patients with atheroma of the arteries, and such as have al-

ready suffered from angina, or signs of cerebral hemorrhage. Add to these patients with diabetes, tabes dorsalis, and general paresis, or cases in which there has been recent endocarditis. One of the most unsatisfactory features of the therapeutic use of salvarsan is, that it does not cure syphilis, even after numerous injections; it cannot replace mercury and iodide of potassium. Prolonged, intermittent treatment of syphilis with mercury is advised by competent observers. J. Ernest Lane, has advocated, in respect to salvarsan, a principle of festina lente. He does not say, that he has ever cured a case of syphilis with salvarsan. He does not think that a surgeon can say he has seen a case cured, until he has kept it under observation for at least three years. Besides, when about to administer salvarsan, he considers it his duty to inform the patient that this treatment is not without risk—a statement which, in the light of Dr. Mentberger's statistics, must be regarded as a very gentle criticism of a dangerous drug.

J. J. C.

A REMEDY FOR CHIROPRACTIC

By reading a little pamphlet of four pages, circulated in this city, we learn that doctors of chiropractic treat the sick with "no medicine, no surgery, no osteopathy." It is stated furthermore, that chiropractic deals directly with the spine of man, and that it has been proven a fact, that disease is caused by displaced vertebrae in the spine. According to their views,

health results from the free flow of the "life current" from the brain, the dynamo, through the spinal cord and spinal nerves to all parts of the body. If the vertebrae of the spine become displaced and impinge on the spinal nerves, shutting off the life current from wherever the nerves lead to, then there is bound to be disease. When consulted by a patient, a doctor of chiropractic adjusts a displaced vertebra, relieves pressure on the nerves and *permits* the life current to flow once more through the nerves; health is again established. A chiropractor therefore is a sort of electrician, who makes it his business to discover defects in the wiring of a human machine, and to remedy them by adjusting displaced vertebrae. Has a patient an abscess in a gland of the groin, the chiropractor promises to cure it, the method of cure consisting in adjusting the displaced vertebrae, impinging on the nerves which supply the lymphatics of the groin. After the necessary adjustment has been made, the life current flows once more from the dynamo; the bubo is cured. If the disease in question should be a psoas abscess, a quinsy, an empyema, it is equally curable, for the pathology is always the same. The beneficent wirer having adjusted a vertebra, promptly cures any form of abscess. Asthma, it is true, appears in childhood and may continue appearing to old age; but, after a loose vertebra has been adjusted, the asthmatic sufferer breathes again, as if he had never known what it is to pant for breath and fail to get it. So, also, in appendicitis. Medical literature contains the records of valuable discover-

ies, revolutionizing the treatment of appendicitis. To chiropractic this is mere futility: let a chiropractor adjust the vertebrae, thereby relieving pressure on the spinal nerves, which lead to the diseased organ, and appendicitis ceases to trouble; health is again established. Some of the more important diseases, which chiropractic promises to cure by the one identical system are: Anemia, bladder trouble, bronchitis, Bright's disease, biliousness, cancer, catarrh, constipation, convulsions, deafness, diabetes, diarrhea, diphtheria, epilepsy, eruptions, eye trouble, female diseases, fevers (typhoid included), with some twenty-four other diseases.

To be consistent, therefore, doctors of chiropractic must be able to diagnose bronchitis from Bright's disease; cancer from nasal catarrh. They may not use drugs; but they claim to have sufficient skill to enable them to adjust one vertebra, whose displacement causes epilepsy, or another vertebra, whose displacement is responsible for diphtheria. Chiropractic is nonsense to any thinking man or woman; but it cannot be laughed out of court. Owing to unfortunate limitations, placed by a judge on the medical law of Ontario, chiropractic laughs best and laughs last. Several years ago, by fastening an arbitrary interpretation on a clause of the Ontario Medical Act, this Judge made the legal members of the College of Physicians and Surgeons of Ontario appear as practitioners, whose sole distinctive legal characteristic resided in the fact that they administered drugs to their patients. By imposing this interpretation of the

essential character of a regular practitioner in Ontario—a drug giver—the way was left open to all sorts of irregular doctors to diagnose and treat disease. As long as they do not give drugs to their patients irregular doctors are free to practice, without let or hindrance, whatever system of medicine they choose, and to publish whatever views or pamphlets they may wish to bring to the notice of the public. They are required, of course, to pay a business tax to the municipality, which, however, takes no interest in their medical qualifications. They do not contribute to the support of the College of Physicians and Surgeons of Ontario. Should they be haled before a court for illegal practice, they deny any infractions of the law, and declare they are not doctors, in the legal sense of that term, because they do not give drugs to their patients. The legal estimate of medical quackery in Ontario is most inconsequential in this province, where large sums of money are spent in supporting common schools, high schools and universities.

One way of removing this legal anomaly would be to amend the Ontario Medical Act, so as to place all candidates for the medical license on the same level, in a matriculation standard, and also in the required amount of knowledge of the primary branches of medical studies. A recognized status in the aforesaid branches having been obtained by examination, candidates for the license should be allowed to study any system of medicine which is in accordance with the declared preferences of a considerable number of in-

telligent and educated people in Canada, and which is not opposed to the dictates of common sense. A final examination as to competency should be exacted, before the license is issued.

Respecting the scheme which is presented here, there is no claim for originality or finality; if a better one can be found it should be brought forward and discussed. Quackery demands some sort of remedy. It is not possible to impose orthodox medicine on all the people, by law. If all students of medicine are properly educated, they will learn to love truth, and will instinctively avoid error. J. J. C.

THE ONTARIO MEDICAL ASSOCIATION

We suggest that each of our readers throughout the Province decide to take a brief holiday this month and spend the 26th, 27th and 28th in Toronto, attending the meeting of the Ontario Medical Association. All of the committees have combined to give the visitors a programme that from every standpoint is the best in the history of the association. The scientific programme has been most carefully prepared and the Committee of Arrangements have left no stone unturned to give the members a pleasant time, including a luncheon on the opening day, a dinner on the second evening and an afternoon at the races on the 27th, the latter through the courtesy of the Ontario Jockey Club. President Charles F. McGillivray is looking forward to the 1914 meeting being the banner one in the association's history. W. A. Y.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

RADIUM IN EPITHELIOMA AND ALLIED AFFECTIONS

BY

G. Sterling Ryerson, M.D., L.R.C.S.E., F.R.S.A., Lond.,
Professor of Ophthalmology and Otology in the University of Toronto, Faculty of Medicine.

Radium, like all other proposed remedies for epithelioma, sarcoma, lupus and rodent ulcer, has had its ups and downs. It has been lauded beyond reason by some enthusiasts and decried as useless by others. The truth is, that given a sufficient quantity of radium and the technical skill required for its application, it gives in about 60 per cent. of the cases treated very excellent results. Like most beginners in its use, I at first undertook cases which were beyond its powers because I was over hopeful and had not enough radium to get results. Now, after four years' experience, I know pretty nearly what I can do. Let me say here that it requires some moral courage to back a new remedy which is so expensive as radium. "Nothing venture nothing win" is an old adage, and I can truthfully say that no department of medicine with which I have been connected has given me so much satisfaction as radium, in proper doses in selected cases. Nothing so completely demonstrates the real value of the substance as the sums of from $20,000 to $50,000 voted by the municipal councils of conservative, hard-headed German cities for the use of the poor in their cities. It is obvious that they were guided in this course by medical advice, and no one will accuse the German profession of being scientifically imaginative. Radium now having arrived at the stage of proved value, it seems to me that the authorities of the Toronto General Hospital, or other hospitals, should be in a position to approach the Corporation of the City of Toronto for a grant for this purpose. Surely the poor have a right to its benefits as well as the rich? The published experience of Wickham and DeGrais, Abbe, Dominici, Finzi, and the Institutes for Radium in Lon-

don and Paris, contain much interesting material. I do not, however, propose in this paper to draw on these rich sources of information, but to relate briefly some of my own experiences. Nor do I intend to deal with Radiogen, radium gas in solution, from which have been obtained some astonishingly good results, but to confine myself to the treatment of epithelioma and rodent ulcer.

1. *Rodent Ulcer.* A gentleman aged 64 had suffered from an ulcer of the right cheek for several years. It was gradually increasing in size and depth. Dr. Lapp, of Cobourg, advised him to consult me with regard to it. I diagnosed rodent ulcer and gave him six treatments of two hours each, when it entirely healed, leaving a nice smooth pliable cicatrice. Two years have elapsed without any sign of return.

2. *Rodent Ulcer.* A gentleman aged 81 was referred to me last year by Dr. J. L. Davison of this city. He had a large ulcer of the right temple approaching the eye covered with a thick scab and exuding a sticky purulent and sanious discharge. I was somewhat doubtful about the outcome of this case of rodent ulcer, as it was of long duration and in a man advanced in life. However, after sixty-six hours of radium, two hours at a sitting, it entirely healed, leaving the usual smooth, pliable, white scar. This spring he had a serious illness and became rather run down in health. The ulcer began to re-open, when a further course of four two-hour sittings caused it to heal up soundly again.

3. *Rodent Ulcer.* A lady aged 72 years was sent to me by a friend from a Western city. She had an ulcer of the left lower lid of twelve years' standing. The tarsal border of the eyelid was invaded and the ulcer, which had a most unhealthy appearance, extended down the cheek a distance of about one and a quarter inches. Treatments by radium were instituted, extending over three weeks, two hours at a sitting, except on one occasion when I used the ultra penetrant rays for a period of ten hours in order to reach the deeper thickened portion. The result was complete healing of the ulcer without deformity of the eyelid.

I could go on and relate similar experiences, but enough has been said to illustrate the point I wish to make that rodent

ulcers, even of long duration, without bone involvement and glandular enlargement, may be healed by a reasonable amount of radium in a few weeks.

4. *Epithelioma.* A lady aged 55 years was sent to me in June, 1910. She had been operated on twice by a surgeon for epithelioma of the upper eyelid, the diagnosis being confirmed by the microscope. Considerable tissue had been removed, causing a considerable deformity. When she came to me the growth had recurred for the second time and occupied the centre and margin of the upper lid for a distance of three-quarters of an inch, extending somewhat on to the conjunctiva and upon the skin of the lid. She was treated with 5 mg. radium pure, six sittings of one hour, and four or five of half an hour or less. In six weeks the growth had entirely disappeared, nor has there been any sign of recurrence in two years and a half.

5. *Epithelioma.* A lady aged 63 was sent to me by Dr. Moore, of Brooklyn, for treatment of a growth occupying the region of the lachrymal sac and extending down the left side of the nose. Over the sac was a thick mass and at the lower end on the cheek it was ulcerated and secreting a thin ichorous discharge. The case appeared such a suitable one for operation that I urged her to allow me to remove it. She steadily refused, so I decided to use radium. Before doing so, however, I removed a small section and submitted it to Dr. George Carveth for his opinion. He reported that it was epithelioma. I proceeded to treat her with radium, using 5 mg. with filtration. She was given sittings of four to five hours for the first week every day. After an interval of three weeks another series was given, and after four weeks still another series of less length. At the end of three months the growth had entirely disappeared and the ulceration healed. Nor was there any sign of recurrence up to the time of her death from pneumonia a year later.

The afore-related cases are typical of the treatment and the results in rodent ulcer and epithelioma and I will not take up space by detailing others of a similar nature.

66 College St.

Society Proceedings

ACADEMY OF MEDICINE

The following comprises in part the work of the Academy of Medicine for the month of April.

Academy Meeting, Tuesday, April 7th.

1. Symposium on "Diabetes."
 1. Experimental Study of Diabetes. J. B. Leathes.
 2. Treatment of Diabetes. H. B. Anderson.
 3. The Surgical Limitations of Diabetes. H. A. Bruce.
 4. Ocular Manifestations of Diabetes. R. A. Reeve.
 5. (*a*) Demonstration of Laboratory Methods in Diabetes.
 (*b*) Demonstration of Diabetic Foods. R. W. Mann, N. Sharpe (by invitation).

II. Discussion opened by V. E. Henderson, R. D. Rudolf, W. J. Wilson.

III. Election of Committee on Nominations.

The Committee appointed comprised the following names: Dr. H. B. Anderson, Dr. E. E. King, Dr. H. J. Hamilton, Dr. R. A. Reeve, Dr. W. H. B. Aikins, Dr. J. H. Elliott, Dr. W. A. Young, Dr. Harley Smith, Dr. Graham Chambers, Dr. N. A. Powell, Dr. W. McKeown, Dr. H. A. Bruce, Dr. J. M. Cotton, Dr. F. A. Clarkson, Dr. F. A. Cleland, Dr. Bruce Riordan, Dr. R. D. Rudolf, Dr. J. T. Fotheringham.

Section of Pediatrics.

Thursday, April 2nd, in the Hospital for Sick Children.

1. Presentation of Clinical Cases by various physicians and surgeons.

II. Von Pirquet Reaction in Surgical Tuberculosis. L. B. Robertson (by invitation).

III. Annual Report of the Secretary.

Dr. Donald McGillivray was elected chairman for the ensuing year with Drs. Geo. Campbell and Eddie Robertson as "medical" and " surgical" secretaries. The closing year of the section of Pediatrics was the best in its history, due to the splendid work of Drs. Harold Parsons and Geo. Boyer, respectively Chairman and Secretary.

Dr. P. G. Goldsmith was elected Chairman of the section of Ophthalmology and Oto-Laryngology, with Dr. T. A. Davies as Secretary and Dr. F. C. Trebilcock as Editor.

Section of Medicine.

Tuesday, April 14th.

I. Artificial Pneumothorax in the Treatment of Phthisis. C. D. Parfitt, Gravenhurst (by invitation).
II. Discussion.
III. Annual Report of the Secretary.

Dr. R. D. Rudolf was elected Chairman of the section of Medicine.

Section of Surgery.

Tuesday, April 21st.

I. Treatment of Gastric Ulcer by Excision of the Ulcer. E. Stanley Ryerson.
II. A case of Jacksonian Epilepsy treated by Operation. W. H. Harris.
III. Annual Report of the Secretary.

Nomination Committee's Slate for the Officers of the Academy of Medicine, Toronto, for the Ensuing Academy Year.

At the last moment, ere going to press, we received the proposed slate for the officers of the Academy of Medicine, Toronto, for the coming year. This slate will be presented to the Academy of Medicine at the regular May meeting on the 5th inst. The slate is as follows:

President, Dr. H. B. Anderson (unanimous); Vice-President, Dr. W. H. B. Aikins; Hon. Secretary, Dr. J. H. Elliott; Treasurer, Dr. W. A. Young (unanimous); Council, Dr. Harley Smith, Dr. R. A. Reeve, Dr. E. E. King, Dr. N. A. Powell, Dr. Graham Chambers, Dr. F. Cleland, Dr. J. T. Fotheringham, Dr. Bruce Riordan, Dr. Herbert Bruce (alternate).

THE WORKMEN'S COMPENSATION BILL

STATEMENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS FOR THE TREASURER OF ONTARIO.

THE DOCTORS NECESSARY SERVICES.

There is a wide difference between the doctor's relation to the injured workman and anyone else. The workman must have the doctor's services, they are of high monetary advantage to employer and employed, and the doctor would not care to refuse to perform these services. Yet it is proposed by the Bill that those occupying this important relation to all parties concerned, their benefactors and savers of life and expense, are to perform the services for nothing, to be the highly skilled workmen whose labors are to go unrewarded, under an Act based on the humanitarian principle that under all circumstances, even during disability, all workmen must be paid.

THE EXISTING LAW.

The compensation to which an injured workman is under the existing law entitled (same as we now find it in Ontario) is set down by Bramwell, L.J. in Phillips v. London and South Western Railway Company, 5 C.P.D. 280, where he says:

"You must give the plaintiff a compensation for his pecuniary loss . . . He is also entitled to some amount for his bodily sufferings and for his medical expenses; and in this manner the compensation to be awarded to him is estimated."

Under the Ontario Workmen's Compensation Act (Sec. 3), " the workman or in case the injury results in death, the legal personal representative of the workman and any person entitled in case of death shall have the same right of compensation and remedies against the employer as if the workman had not been a workman of, nor in the service of the employer, nor engaged in his work."

This means that the damages (which include medical and hospital expenses) can be recovered as against a stranger and belong to the personal estate of the deceased in case of death.

The Proposed Bill Deprives Medical Men of Existing Remedies.

The Act as framed deprives the medical man of his right to participate in the damages awarded to the injured workman in all cases except under Section 36, where a deceased workman leaves no dependants. This section is strong evidence by implication of the intention of the Act, that where there are dependants they must pay, but no provision for this is made. Under the proposed Bill, no sum payable by way of compensation is attachable so the medical man cannot succeed in recovering anything out of the sum awarded from an unwilling workman who survives his injury.

From the dependants of a deceased workman he could not hope to get anything because the compensation awarded is no part of his estate but is given directly to named persons. There is no privity of contract between the doctor and the dependant.

Some Suggested Remedies and Their Weakness.

It has been suggested that with the approval of the Board (under Sec. 19), the dependant might be made to pay the doctor after judgment obtained. The doctor could obtain no judgment against a dependant and any payment made by the Board out of the dependant's fund to a medical man would be restrained by the Courts as not by law payable.

The Board, it is true, might after successful suit against a person totally or partially disabled permit the doctor to attach the fund, but why put him to that expense? The spirit of the Act is to avoid litigation.

Proposed Remedies to Safeguard Doctors.

If, as Chief Justice Sir William Meredith says (page 15, of his final report), his draft Bill is made up on the basis that

"the workman will bear his outlay for medical or surgical treatment, nursing and other necessaries," then the intention of the Act is that the workman shall do so.

If that be not the scheme of the Act, if the workman is not to pay the doctor, then as is requested in the memorial already presented by the Faculty of Medicine for Ontario, there should be added to every provision for compensation the words "and such sum for medical care and hospital care as the Board thinks reasonable."

Section 33, subsection 1, by adding to clause thereof the following:—

"And such further sum as the Board may deem reasonable for the expenses of his medical attendance and hospital care, to be paid to the persons to whom such expenses are due."

Section 37, by adding thereto the following words:—

"And such further sum as the Board may deem reasonable for the expenses of his medical attendance and hospital care, to be paid to the persons to whom such expenses are due."

Section 38, by adding thereto:—

"And such further sum as the Board may deem reasonable for the expenses of his medical attendance and hospital care, to be paid to the persons to whom such expenses are due."

If on the other hand the statement of the Commissioner is to govern, if the workman is to pay, then in case of death and in the cases of total or of partial disablement let the claimant hand in the doctor's bill with his claim for compensation and let the Board fix the amount to be paid and direct payment. As this payment really lessens the claimant's compensation in cases of total disability he will fight hard to cut down the bill to the lowest amount. So will he in the case of partial disability, because the workman gets a fixed amount, proportionate to the impairment of his earning

capacity, and if out of that he has to pay the doctor he will fight to cut down the bill. In neither the case of total nor of partial disability is the amount the employer pays enlarged by the amount of the doctor's bill, because in the former case the workman gets only a fixed per cent. of the earnings and in the latter only the amount of impairment.

If the meaning of Section 19 is that the medical man is obliged in the long run to go to the Board for approval of his right to collect, why not let the Board deal with this claim as part of the workman's claim from the start and save him the expense and annoyance of suit?

PROPOSED AMENDMENTS TO BILL TO CARRY OUT FOREGOING.

Amend Section 44 by adding thereto,

(*a*) "And where the Board is of the opinion that for any reason it is necessary or desirable that the medical and surgical expenses and charges for hospital care incurred by the workman, where death has resulted, should be deducted from the compensation awarded to any dependants, the Board may do so and direct that such payments be made to the person or persons to whom the expenses and charges are due.

(*b*) And where the Board is of the opinion that for any reason it is necessary or desirable that the medical and surgical expenses and charges for hospital care of the workman in cases of total or partial disability be deducted from the compensation awarded, the Board may do so, and direct that such payments be made to the person or persons to whom the expenses and charges are due.

(*c*) In presenting claims for compensation to the Board in every case the claim must be accompanied by the accounts for medical and surgical expenses and hospital care, and these the dependants or the injured workmen must pay.

There are three classes of injury:

(1) Resulting in death. Then as pointed out the doctor can get nothing from the dependants because he has no legal claim.

(2) Resulting in total disability. Then the doctor can get nothing because the man can never again earn, his power to pay is gone except from the sum awarded him, and the fund he gets is not liable to attachment.

(3) Resulting in partial disability. Then the doctor's right to participate in the damages is denied as in case (2) and he is left to the minimized wages of the impaired workman which would amount in nearly every case to less than the amount per week which could be garnisheed in the Division Court.

The fair thing to do if the doctor's charges are not to be made an additional charge on the fund, is to let the Board pay the doctor out of the actual amount of compensation awarded. The workman cannot object, nor can the dependant, if what is stated by the Commissioner be the scheme of the Act.

Other Countries.

The principle of taking care of the medical profession has been adopted in most European countries and most of the United States of America which have compensation acts and allow compensation.

Austria.—For disability, medical and surgical attendance for twenty weeks paid by sick benefit fund and sixty per cent. of wages.

Belgium.—For disability, expenses for medical and surgical treatment for not over six months and fifty per cent. of wages.

British Columbia.—In case of death, reasonable expenses of medical attendance up to $100.

Finland.—Until recovery, injured employee may be given treatment in a hospital in lieu of other compensation during such treatment his wife and children get a compensation equal to pension in case of death.

France.—For disability, expenses of medical or surgical treatment with sixty-two and two-thirds per cent. of wages for permanent disability and fifty per cent. for temporary.

Germany.—For disability, free medical and surgical treatment paid first thirteen weeks by sick benefit fund, afterwards by Employers' Association, and fifty per cent. of daily wages.

Greece.—For disability, free medical and surgical treatment and fifty per cent. of earnings.

Holland.—For disability, free medical and surgical treatment, or its cost with seventy per cent. of earnings, scaled down.

Hungary.—For disability, free medical and surgical treatment provided for first ten weeks by sick fund and afterwards by accident fund, with fifty per cent. of earnings.

Italy.—For disability, cost of first medical and surgical treatment, with large payments.

Luxemburg.—For disability, entire cost of medical and surgical treatment with fifty per cent. of earnings.

Norway.—For disability, free medical and surgical treatment, or cost of same after four weeks.

Russia.—For disability, free medical and surgical treatment, or reimbursement of expenses of same with sixty per cent. of earnings for total disability and fifty per cent. for temporary disability.

Spain.—For disability, free medical and surgical treatment during disability with fifty per cent. of daily earnings.

United States Acts.

The provisions made which provide for medical and surgical care in the United States of America are set out in Dr. Riordan's report to the Academy of Medicine, copy of which has already been sent to the Treasurer, but which may be repeated here:—

California.—Reasonable medical and surgical aid during first ninety days not exceeding $100.

Illinois.—Necessary medical, surgical and hospital services for eight weeks not exceeding $200. Necessary services of physicians and surgeon, eight weeks, without limitation on amount.

New Jersey.—During first two weeks, not over $100.

Massachusetts and Rhode Island.—During first two weeks, reasonable medical and hospital services and medicine when needed.

Michigan.—During first three weeks, reasonable medical and hospital services and medicine.

Ohio.—Such as Board may deem proper, not exceeding $200.

Wisconsin.—Reasonable for the first ninety days, includes medicine, appliances and hospital.

Where no Provision for Medical and Surgical Care.

In the State of Washington no provision is made for medical and surgical or hospital care, and after two years' working under the Act there the Commissioners themselves make the following very forcible recommendation to the Government. Report, 1912, State of Washington, pages 280-1:—

"There can be no question but that there is an insistent demand on part of injured workmen, their families and friends for some amendment to the Act whereby victims of work accidents will be given immediate and thorough competent medical attention after an injury; and that the cost of such treatment be either paid by the employer directly, or by the State out of some fund, or indirectly by an increase in the scale of awards sufficient to cover the cost in all cases.

"The absence of some reasonable provision for 'first aid,' following the system where employer (or casualty companies) treated men in self-defence, has led many working men to assert that the Act is a 'corporation idea,' more designed to protect

the companies than aid the men. Scores of vigorous letters received in connection with awards, during the year, stand as testimony to this view.

"It has been pointedly said respecting work accidents that employers do not intend murder nor workmen suicide, nevertheless all statistical data available and analyses thereof, show that not less than fifty per cent. of such accidents are preventable, and in certain industries the percentage is much higher. The drain of accidents, so far as preventable, needlessly saps industry in payment of compulsory contributions for awards; and is an equally inexcusable waste of human life and energy among workmen."

Elimination of Medical Protection Due to Haste.

Another quotation from the State of Washington Commission Report for the year 1912 is of interest:—

"The burning issue of the industrial situation to-day is the need of a first-aid fund. When the Act was discussed in the Legislature it already bore a provision for first-aid, which was stricken out at the urgent request of the manufacturers, who declared that they desired to establish their own first-aid funds; it was also felt that the law, revolutionary as it was in a great many respects, would prove to be of sufficient burden without the addition of a first-aid provision. The whole matter was, therefore, stricken out and the schedules designed to accompany that provision were allowed to remain as they are It will be seen that the law provides simply for the bare necessities of life during disability or after the death of a workman, and the expense of doctor's bills, hospital dues, etc., is absolutely unprovided for. *It is clearly up to the employers and employees of the State to give this question of first-aid careful and serious consideration inasmuch as it constitutes, in the opinion of the Commission, the most imminent problem in connection with the administration of industrial insurance in this State to-day.*"

REPORT OF COMMITTEE OF THE ACADEMY OF MEDICINE OF TORONTO RE WORKMEN'S COMPENSATION BILL

THE Committee's report was as follows:

As the mover of a motion at the last meeting of the Academy of Medicine, March 3, 1914, which was carried unanimously I have been asked by the President to introduce the subject of the motion to the Fellows now present. The Committee then appointed have been supplied with a copy of the proposed Act entitled "Laws relating to the Liability of Employers to make compensation to their employees." I presume other members present have looked over the proposed bill. We are now assembled to consider the bearing such an Act would have on the rights and interests of the medical profession of Ontario and to take such action as this Academy deems necessary. First I would draw your attention to the reason given for the proposed Act. The basic principle is that the industries causing the accident and injury to the employee or employees should bear the cost of such injury and that the injured employee's relatives or friends or the municipality or state should not be put to the expense of caring for such a person.

By the proposed act the injured person is to bear the cost of his outlay for medical and surgical treatment or other necessaries. Page 15, Sir R. W. Meredith, second Interim report addressed to the Lieutenant-Governor of Ontario, Oct., 1913.

Sir R. W. Meredith, says in his report to the Lieutenant-Governor, Oct., 1913: "In these days of social and industrial unrest, it is, in my judgment, of the gravest importance to the community that every proved injustice to any section or class resulting from bad or unfair laws should be promptly removed by the enactment of remedial legislation and I do not doubt that the country whose legislature is quick to discern and prompt to remove injustice will enjoy, and that deservedly, the blessing of industrial peace and free-

dom from social unrest. Half measures which mitigate but do not remove injustice are, in my judgment, to be avoided." *We think this should be applied to the Medical Profession.*

Under the present existing Employees Compensation Act, the medical or surgical expenses become an important part of the claimant's account for an award from the Court for his injuries, Section 35 is the only reference to any compensation to the medical profession under the proposed Act. The section reads "Where a workman leaves no dependants such sum as the Board may deem reasonable for expenses of his medical attendance and his burial shall be paid to the persons to whom such expenses are due." The list of possible dependants includes (members of the family, M. page 24 of report.) M. "Member of the family" shall mean and include wife, husband, father, mother, grandmother, grandfather, stepfather, stepmother, son, daughter, grandson, grand-daughter, stepson, stepdaughter, brother, sister, half-brother, and half-sister, and a person standing in loco parentis to the workman, whether related to him by consanguinity or not so related, and where the workman is the parent or grandparent of an illegitimate child, shall include such child, and where the workman is an illegitimate child shall include his parents and grandparents.

The medical man's chance of being paid anything under this clause seems very remote.

The physicians are specially interested in the industrial disease schedule, page 50, section 96, which reads (1) where a workman suffers from an industrial disease and is thereby disabled from earning full wages at the work at which he was employed or his death is caused by an industrial disease and disease is due to the nature of any employment in which he was engaged at any time within twelve months previous to the date of his disablement, whether under one or more employers, the workman or his dependants shall be entitled to compensation as if the disease were a personal injury by accident and the disablement were the happening of the accident subject to the modifications hereinafter mentioned, unless at the time of entering into the employment he had

wilfully and falsely represented himself in writing as not having previously suffered from disease.

INDUSTRIAL DISEASES.

Anthrax (handling of wool, hair, bristles, hides and skins). Lead poisoning or its sequelæ (any process involving the use of lead or its preparations or compounds). Mercury poisoning or its sequelæ (any process involving the use of mercury or its preparations or compounds). Phosphorus poisoning or its sequelæ (any process involving the use of phosphorus or its preparations or compounds). Arsenic poisoning or its sequelæ (any process involving the use of arsenic or its preparations or compounds). Ankylostomiastis (mining).

These diseases are to be treated as accidents. Other countries with somewhat similar legislation as is proposed in this new Act have made provision for surgical and medical care and the cost thereof is charged to the industries causing the injury or disability.

In the following states of the union to the south of us, provision has been made for medical and surgical aid: California, reasonable during first ninety days, not exceeding $100.00; Illinois, necessary medical, surgical and hospital services for eight weeks, not exceeding $200.00—necessary services of physicians and surgeon eight weeks without limitation on amount; Kansas, New Hampshire, Nevada, none unless employee dies leaving no dependants; New Jersey, during first two weeks, not over $100.00; Massachusetts, Rhode Island, during first two weeks reasonable medical and hospital service and medicine when needed; Michigan, reasonable medical and hospital services and medicines during first three weeks; Ohio, such as Board may deem proper, not exceeding $200.00; Washington, fifty per cent. of benefits added for first six months of total temporary disability, not more than 60 per cent. of wages in all; Wisconsin, reasonable for first ninety days, includes medicines, appliances and hospital.

In the proposed Act we cannot attach for payment of medical services any award during life of injured man or any award which goes to his dependants in case of death.

From the First Annual Report of the Industrial Insurance Department of the State of Washington, U.S.A., we note page 280, D. the Government Commissioners say:

"There is no question but that there is an insistent demand on the part of the injured workman, their families and friends for some amendment to the act whereby victims of work accidents will be given immediate and thoroughly competent medical attendance after an accident and that the cost of such treatment be paid by the Employer directly or by the State out of some fund, or indirectly by an increase in the scale of awards sufficient to cover the cost in all cases."

Dr. J. W. Mowell, Chief Medical Officer of the Board for the State of Washington says: "This report would not be complete without paying a tribute to the Medical Profession for the share they have had in making this law a success." Further on he says: "I take this opportunity of thanking them, since thanks and kindly feeling are all the Commission is yet able to offer."

We are so familiar with these votes of thanks and eulogy of the Medical Profession where words cost nothing that it almost nauseates the man of experience.

This proposed Act will apply all over the Province of Ontario. The employees under this new Act will have to bear the burden of all costs for surgical or medical attendance, nursing and necessaries. After an injury the workman's wages cease immediately. There will be an injustice done to the members of the medical profession by imposing on them the duty of attending accident cases without any provision for remuneration. There will also be the added liability for suits of malpractice if the patient is not satisfied with the results secured in his case. Our present rights to be paid for our services as part of the damages recoverable under the Employers Liability Act now in force and under the common law are to be taken away.

A committee was appointed two years ago this last February to present the views of the Academy of Medicine to the Commissioner as to the effect the proposed legislation would have on the medical profession. We have a copy of the letter sent asking for a hearing and an acknowledgment of its receipt from the Secretary of the Commission. No appointment was granted.

Before concluding we wish to assure the gentlemen present and the other members of the Medical Profession of Ontario that there is no politics in this movement, that we are actuated solely by a desire to present our views to the proper authorities so that the interest of the registered members of the College of Physicians and Surgeons of Ontario be not overlooked before this proposed Act becomes law.

I am sure you will agree with me when I say that the people of this Province, including all classes, owe a debt of gratitude to Sir Wm. Ralph Meredith for his work as Commissioner, appointed to investigate and recommend a just and economical means of compensating employees who have been injured. The fund of information which he has collected and his judicial opinions will be of inestimable value.

As Sir William says, "He does not claim that the proposed Act is perfect nor that the last word has been said," when he made his recommendation for its adoption to the Government.

We would recommend that the proposed Bill, "Laws relating to the Liability of Employers to make compensation to their employees for injuries received in the course of their employment," have the following sections added:

Section 33, subsection 1, by adding thereto the following:

"And such sum as the Board may deem reasonable for the expenses of his medical attendance and hospital care, to be paid to the persons to whom such expenses are due."

Section 33, subsection 2, by adding thereto the following words:—

"And a further payment of such sum as the Board may deem reasonable for the expenses of his medical attendance

and hospital care, to be paid to the persons to whom such expenses are due."

Section 36, by adding thereto:—

"And such further sum as the Board may deem reasonable for the expenses of his medical attendance and hospital care to be paid to the persons to whom such expenses are due."

BRUCE L. RIORDAN,
Chairman of Committee.

The report was adopted unanimously and a copy of same ordered to be sent to each Fellow of the Academy.

Notwithstanding the action of the Academy of Medicine and the Ontario College of Physicians and Surgeons in appealing to the Legislature for at least fair treatment in this matter, the interests of the profession have been utterly ignored, and, at the time of writing, the deputations have been told by the Government that nothing can be done, at least this session and that the question of the profession getting any redress must be left over for one or possibly two years. In fact it has been intimated that if the Act turns out to be workable as it stands, no further change will be made at all. It is nothing short of contemptible to think that surgeons, who have done, and are doing, more for the poor than any other class, are told in such a cold blooded manner that they are simply to continue attending all kinds of injury cases for, frequently, wealthy corporations and for which after the passing of the Act they are to receive nothing and at the same time lay themselves open to charges of malpractice into the bargain. W. A. Y.

SOCIAL SERVICE CONGRESS, OTTAWA

(*Continued from our April issue.*)

"The phrase, 'defective children,' is not only pathetic, but it is an insurrection against Nature," said Dr. Helen MacMurchy, of Toronto, in speaking of this subject at the Social Congress, Ottawa, March 3rd.

"Would that there were no defective children in Canada," she added, "and there are not many."

Dr. MacMurchy then outlined the various types of defective children. From this the speaker urged that there should be special provision made in the schools for those pupils who were handicapped by deafness or poor sight. For the absolutely deaf child lip reading was strongly advocated.

The best specialists in the isolation hospitals was another plank laid down by this eminent lady physician.

Turning to the question of mentally defective children, Dr. MacMurchy recommended special attention in the form of perhaps school segregation and in separate training schools. In this respect she advocated the closing of the loop holes of easy immigration.

His Honor Judge Choquet, of Montreal, termed the juvenile courts a great national asset in the money saved to the state and in lives saved for useful citizenship. He gave a tangible illustration of this when he said that of the 2,000 children brought before him last year, only 126 were sent to the reformatory.

Judge Choquet then treated with the wide diversity of types in child delinquents met with, and the difficulty in handing out justice to such a cosmopolitan class.

He next advocated detention homes in connection with juvenile courts, with separate departments for boys and girls under the kind but firm supervision of matrons. In this he thought that there should be two branches of the juvenile courts—one for children who have broken an article of the criminal code, and another for those who are illiterate and poorly brought up.

"Ninety-five per cent. of the boys brought before me smoke cigarettes, and this is a great contributing factor to moral and

physical detriment, and the heaviest penalty should be meted out to the vendors," declared Judge Choquet.

The moving pictures, too, were scored, and although his Honor admitted that the movies were here to stay, still he contended that they now had to be placed on high levels. "They exercise a strange fascination for the children," said Judge Choquet, "and children have been before me who have stolen to get to the moving picture hall." He also stated that a good many cases of boy-shooting affairs and hold-ups with which he had to deal arose out of seeing wild west heroes in action on the films.

The placing of sex hygiene on the school curriculum was, he regarded, a necessary move.

The establishment of a domestic relations court was urged for every city in Canada.

He suggested that the following acts of delinquency be added to those mentioned in paragraph C, clause 2, of the Juvenile Act:

"A juvenile delinquent means also any child who is incorrigible or who knowingly associates with thieves, vicious or immoral persons, or who, without just cause and without the consent of its parents, or custodian, absents itself from, or deserts its home or place of abode, or who is growing up in idleness or crime, or who knowingly frequents a house of ill-fame or leads an immoral life privately, or who knowingly patronizes any policy shop or place where any gaming devices are or shall be operated, or who frequents any saloon or dram shop where intoxicating liquors are sold, or who patronizes or visits any public pool room or bucket shop, or jumps on moving trains, wanders about railroad yards, habitually uses obscene language or is guilty of immoral conduct in any public place or about any school house."

"Mothers' Pensions" was the question dealt with by Mrs. Rose Henderson, of Montreal. "We have been up to to-day dealing with adults, but now we are beginning to realize the importance and place of the child." said Mrs. Henderson.

"I would like to see not only pensions for widows, but pensions for criminals' wives," announced the speaker launching into her subject. This new move was absolutely necessary ow-

ing to the dread of institutional life resulting sometimes in entire refusal to enter such at the cost of health.

Mrs. Henderson cited several pathetic instances where mothers refused to be separated from their children when either, or both, were apprehended by officialdom as fit candidates for institutional life.

In speaking of one example of the routine of an institution, she said: "I saw children get up to a bell, walk to the table to a bell, eat to a bell and sing to a bell. Fancy that in your homes; would it not drive you crazy."

Controller McCarthy, of Toronto, then moved, seconded by Mrs. A. N. Huestis, president of the Toronto branch National Council of Women, that the congress submit and recommend that the Dominion Government be approached with the object of founding a Mothers' Pension Fund for needy mothers.

The Toronto controller intimated that if both Provincial and Dominion Governments failed in this respect, the city of Toronto would take steps to provide a pension for the poor widows in Toronto "on a basis of humanity and good business" as stated by Mr. McCarthy.

Among the speakers was Mr. J. J. Kelso, superintendent of neglected and dependent children of Ontario.

Mr. Kelso said in part: "The world is entering upon an era of social justice, and Canada, as a young and growing nation upon whom the hearts and hopes of men are centred, should not be indifferent to the demand for such social legislation and expenditure as will place her in the front rank of the nations that are earnestly seeking the greater happiness, prosperity and comfort of the masses of the people. 'Peace hath her victories no less renowned than war,' and social welfare is a subject that might well claim the best thoughts and effort of all our parliaments. This is why we are assembled here to-day, and the cause in which we strive is one of which we need not be ashamed."

Rev. S. W. Dean, of the Fred Victor Mission, Toronto, spoke on "The Church and the Slums." The church and the slum cannot exist alongside each other peacefully. The church must start a fight which will wipe out all these slums if it is to do

its duty. The difficult nature of the work was pointed out by the speaker, and he declared that only true earnestness and a united effort would better those conditions. A vivid picture of life in the slums was given by Mr. Dean. It was in the slums that criminals found their greatest hiding-place. It was the breeding place of immorality. The conditions constitute a challenge to the church, and this challenge must be taken up.

"What justification have we for going to foreign lands and doing missionary work if slum conditions exist in our midst. We must clean our own doorsteps at home before we should send the worker to other countries." A church that could shut its eyes to slum conditions had no justification for being maintained as an active Christian body. The only hope that the slums would give way was that the church would make a strenuous battle by using forces right in the heart of the slum district."

Speaking of rescue missions, he thought that the missions often did great harm by handing out meal tickets and beds without first investigating whether the man was worthy of this charity. Free beds and free meals were all right, but the man should be made to feel that he must earn this and should be provided with some kind of work by the mission. The rule at the Victor Mission was when a man applied for assistance to offer him such aid if he is willing to work for it.

The way to counteract the slums was to provide a mission or some healthy institution to get the people of the district interested in better things. It was all-important to deal with the housing problem in the slums, but the individual was more important, and the church must take their share of the work. What the church needed was to get the spirit of social justice.

Rev. R. L. Brydges of Toronto, said that Canada was but a nation in the making. It was plastic now, but would not always be so, and the day had arrived to mould social conditions so that the Dominion would be a lesson to the rest of the world. Each of the delegates should go back to his or her district with a determination to do all in their power to advance the cause for which they were gathered together. The true

definition of social service was "Each for all and all for each." The speaker did not believe the public schools lived up to their responsibilities. That was the place where the start was made in true citizenship. Why not use these schools after study hours as a place of social meetings that would bring the people to know each other better in the neighborhood. It would be a means of getting together on matters that were of common interest and would put an end to racial and other differences. We had lost much of the sense of union of the early days, of social gathering together. We needed our neighbors and they needed us, and there should be some place of social meeting. The speaker made a strong plea for the opening of the schools as a social centre.

In speaking of the foreign question, Mr. Brydges said that the main thing was for citizens to show by their actions that they welcomed the newcomers to the Dominion. In conclusion. the speaker advocated vocational training in the schools.

Miss Sara Libby Carson, general supervisor of settlement work of the Presbyterian Church, gave a very interesting address on "The Social Settlement," dealing with the various phases of settlement work. Her remarks were listened to with the greatest interest.

"The Rights of the Child," was the subject dealt with by Mr. W. L. Scott, K.C., of Ottawa. Beginning with the first qualification—"to be well born"—he touched briefly on heredity and environment. The development of the plastic instincts in childhood for good was regarded as most essential to the best citizenship.

From this Mr. Scott dwelt on slight physical ailments, which, if let go, result in lowered vitality and abnormal conditions in the child. The remedy for this was given as medical inspection.

March 4.

The great interest being taken in the cause of improving social conditions in Canada was evidenced in no uncertain manner at the meetings of the Social Service Congress of Canada on Tuesday, March 3rd. At the afternoon session many people who wished to attend were unable to do so as the capacity of

the Normal School Hall was taxed to beyond its limit. In the evening an overflow had to be held and a room in the Collegiate Institute was secured for this purpose. Perhaps never in the history of the Capital has there been gathered together a more able and eloquent list of speakers, and they discussed the various phases of social reform work in a manner which left no doubt in the minds of their hearers that they were deeply in earnest in the cause which they advocated. To better the condition of the masses, was the predominant note that prevailed in all the addresses delivered, and the frequent applause showed the keen interest the big gathering was taking in the movement. The speakers launched right out from the shoulder and said many plain things, regarding what was necessary if the movement for social reform was to be a factor in settling the evils that exist to-day.

The live addresses of Dr. Charles Stelzle, the well-known New York Sociologist, were the bright, particular feature of the sessions yesterday.

Perhaps no speaker has so suddenly jumped into favor as this man who knows and has mingled with humanity in the raw. And it is not because he speaks glowingly and eloquently of past performances. He does nothing of the sort. He slams them as hard as he can. Not that he is in any sense an iconoclast, not that, but he knows the weakness and little foibles of the church, from experience on both sides, and he does not hesitate to show it all up.

Some lively discussion took place during the afternoon in which the question of the unemployed played a prominent part, and resolutions were moved calling upon the Dominion Government to take action in the matter.

Hon. Mr. Burrell, Minister of Agriculture in opening the afternoon session said that it was quite unnecessary to point out the great significance and importance of a gathering of this kind. It must be approved and welcomed by every man who is interested in the welfare of his country. He thought that all classes of citizens, including politicians, should take an interest in such matters of vital interest to the country itself. The great and permanent forces of the world were moral forces. No man could be a pessimist who studied the conditions of the

past and present. The majority of the people of to-day believed in right and justice and lived well morally. The underlying forces were moral and society was based on the determination to do right.

They should all be animated with a divine discontent, against social evils. There should be an organized and concerted effort to study social conditions and then a plan should be worked out to stamp them out. Reform without earnestness and that strong personal influence was idle to talk about. The man who helped to mould public life was much greater than the man who simply placed the laws on the statute books.

He predicted that much good would result from the deliberations of the convention.

Dr. Charles Stelzle, consulting sociologist of New York, spoke on the subject, "Capturing the Labor Movement." The social problem, he stated, was the most serious one confronting us to-day. There was already great unrest throughout the world. Certain men were bending every effort to abolish trades unions. If every union was wiped out the labor question would still be with us, and he believed that such action would only aggravate conditions. This was the era of the common man—they were now surely coming into their own. They were fighting the battle for democracy, and would surely win. The labor union was merely an incident in this industrial evolution. He predicted that the masses—the common people—would yet be called upon to save the church. It was far more important to have mechanics than millionaires in the church, as the mechanic was one of the great army of workers and had a big influence with his fellow-worker.

The great mass of the workers, whether they believed in the church or not, looked upon Christ as their friend and Saviour. Thousands of the workers who never entered a church had a picture of Christ in their homes and revered it. He had addressed many mass meetings of workers at which the mention of Christ's name invariably caused applause, whatever they thought of the Church. The working men of to-day were ready to respond to an appeal when talked to on religion. They were naturally religious. The labor problem was a religious one—and the ablest labor leaders had come to recognize

this fact. Before there could be a settlement of the social problems there would have to be a change in the hearts of men.

An ideal social system could only last with ideal men. The workers of to-day were responding to the appeal of the church better to-day than ever before in history. In one hundred cities in the United States the labor men were now receiving fraternal delegates at their meetings—an entirely new condition of affairs which showed that labor and the church were drawing together. The tendency of the workingman to-day was towards the church. The vision of the church was often too narrow on the whole. The speaker said that if the people would not go to church the ministers should take the gospel to them. He was a firm believer in evangelism—even to street corner speaking, if necessary, to reach the masses.

"Let's take God's message into the highways and byways and reach the people. The average workman is naturally superstitious of every movement in his interest, because he has found in many cases that the men who have deceived him, have been prominent in church work. We hear on all sides talk of building up the church. I am sick of hearing such talk. Let us build up the people. The church is only a means of a purpose. Let us engage in this work of social reform even if it doesn't add a member to the church. Let us work with an absolute sincerity and open-heartedness that will win souls for Christ, that is more important than getting them to church."

The spirit of democracy was the great thing in working out social reforms. The worker must find in the church the spirit of democracy, if he was to become really interested. The lack of this was keeping the worker away. The church must preach a clearer social message. Talk about preaching hell-fire—the average worker feared losing his job more. What he wanted to know is when he will get out of the hell he is now in. Once the church would do all that it might do, no organization in all the world could do as much for the worker. The church must capture the labor movement or the labor movement would capture the church.

Controller James Simpson, of Toronto, said that one of the most hopeful signs of the times was that the church was arousing itself to the taking of a keener interest in industrial matters. This was shown by the fact that never was there a time when so many men connected with the labor movement were invited to address church and social reform workers. The bulk of church workers were of the working class, and they must eventually become the predominating factor in church work. The purpose of the labor movement was to endeavor to relieve the anxieties and conditions that exist to-day regarding the workers. The controller dealt at some length with the various legislative measures that were being sought to relieve and alleviate the conditions, and said the church was in duty bound to assist in bringing these reforms about. He deplored the fact that in Canada there was a tendency to believe that it was absolutely necessary that a few individuals should control the industries under the profit system. If we were going to develop Canada on the lines of the older countries, regarding industrial conditions, it would mean similar conditions to those that exist in Europe—unemployment and slums and much poverty. The labor movement in Canada was not going to be satisfied with this. They wanted a better condition of things in the Dominion. As far as the church and industrial life was concerned the progress of the church rested on the interest it took in the great labor movement. They must go hand in hand to bring real results. The speaker then dealt with the subject of the little children who are employed in factories and the starvation wage paid in many instances by men who are piling up fortunes at the expense of these unfortunates. These conditions would exist until there was co-operation between the church and the big organizations who were trying to wipe out these evils. United action was necessary before any real effort to solve the social problem could be brought about.

Rev. J. W. Aikens, of the Metropolitan Church, Toronto, said that religion to-day to do the best service must be founded on similar principles to those that have established a successful business. He imagined if we had the proper kind of religion it would have a great deal to do with the business of

to-day. "If we could see the real worth of an individual we could solve every problem we have—the worth of the individual in the sight of God." The speaker was sure that the Congress was a gathering that would gladden the heart of God. The greed for gold was behind most of the curses and troubles of mankind to-day. If the man who would go through slaughter for gold could be reached by the church it would do much to solve the present social problem. Mr. Aikens here spoke of the greed that had disgraced certain legislators in a neighboring province. He was glad to see of late that many captains of industries were treating their employees not as slaves, but as brothers. It was not simply the thing we do but the spirit of the way in which we do it that counted. The humblest worker and the millionaire were all the same in God's sight.

"Get the spirit of brotherhood and you will be on the road to solving the problems that surround us," declared the speaker. He did not believe there was a place in Heaven for the man who secured wealth and retired while able to work. God had no use for a lazy man. Co-operation was the great principle to work on—but that co-operation must be with all society and not a part of it. The church must link up with the workers, the politicians and all classes if they were to solve the great social problem. Business men teach us a great deal about church union. It was pretty hard to see six days of business co-operation and the divisions of the church on Sunday.

Rev. Prof. G. C. Pidgeon, of Vancouver, B.C., spoke of the relations of the church and labor in British Columbia, and stated that in the great movements for improvement of social conditions they should be working side by side. He pointed out that much of the work along this line was advocated by both the church and labor movement. The great fight labor on the coast was making was over the question of improper dismissals and for the better protection of the worker as regards safe conditions and healthy ones. Another big issue was the demand for compulsory compensation in case of accident or death while on duty. The speaker believed the church might help matters by putting its whole force behind

the Compensation Act. The church was feeling its way in regard to social conditions, but should have some united plan. The church system should be changed where it was needed, if it was found necessary to bring this about. He believed the church should make common cause with the labor movement in some of their agitations. The labor people did not ask the church for anything but to assist them in standing for the principles of right and justice with regard to their fellowmen. In conclusion the speaker dwelt on the benefits of brotherhood and said that the labor movement had always stood for the humane side of things. The church could well afford to work with them.

Rev. W. A. Riddell, of Toronto, gave an interesting paper on "The Value of the Social Survey." The social survey plan is a method of investigation of a given area of the facts and needs in relation to human life, which are given later to the public. Over 200 of these social survey committees are at work in different parts of the Dominion. Mr. Riddell gave some very interesting information regarding the investigations that had been made at different points. The work covers a wide scope and deals with the various phases of the social problem as it exists to-day.

In dealing with his subject—"Radical Tendencies Among Workmen"—at the luncheon in the Chateau Laurier in the evening, Dr. Stelzle contended that there would be no panacea for the labor problem "when everyone comes around with a panacea," as he puts it.

Lucidly and logically he outlined the various factors entering into the more noted labor disputes and gave it as his opinion that every generation and every labor dispute would have its own problems.

Radicalism among workmen he attributed to the spread of socialism.

For the evening's session the Normal School Hall was packed and the doors had to be closed. An overflow meeting was held in the Collegiate Institute Assembly Hall, and it, too, was taxed to its capacity.

The Hon. Rodolphe Lemieux, ex-Minister of Labor, found at the last moment that he was unable to attend, and as the

Rev. C. W. Gordon (Ralph Connor) was also absent these vacancies on the programme were filled by Mr. H. H. Stevens, M.P. for Vancouver, who spoke on Oriental immigration, and Mr. W. W. Lee, immigration secretary of the Y.M.C.A., who also dealt with immigration problems. Archbishop Hamilton was chairman for the evening in the Normal school.

"Most of the problems which are demanding the attention of Canadian people arise out of the influx of eastern or Oriental immigration," stated Mr. Stevens, who added that during the last year one-half a million came into the portals of the country.

"We have been in error," declared Mr. Stevens, "in encouraging so much emigration from southern Europe, and in future immigration from that section should be very carefully scrutinized."

He laid down the principle that immigration, to be successful, should involve capacity for assimilation—the adaptability to the institutions of the country. He drew the comparison that last year over 4,000 undesirables were turned back from the British Isles and very few Orientals.

The distinction between Oriental and Occidental civilizations was next dealt with, and from that the Vancouver M.P. spoke of the hordes of millions of Orientals facing the Pacific seaboard with the attendant attraction of America for them. In this lay the danger of western civilization being undermined. Unfit citizenship menaced political life, which, he said, was bad enough. "We are naturalizing thousands who are unfit to exercise their franchise," said Mr. Stevens, who followed this up by saying that it was our duty to preserve the national type of Canada.

Dispelling the argument of Orientals being required to do the menial work, he asserted that we do not want menials, but competent citizens.

Dealing with the effect of Oriental immigration on the industrial life of British Columbia, he traced its ruinous path—in ousting domestic labor, and in the fishing industry and in other industrial activities.

The Hindoo question offered a different problem owing to the cry of "fellow-subjects," and here Mr. Stevens contended that they had not the right of citizenship or self-government

in their own country. Then, why allow them these privileges in this country.

The cry of letting the Hindoo bring his wife, or wives in, Mr. Stevens branded as a mercenary cry exploited by the Hindoos to enable more men to come into the country. This question, too, would introduce and involve the Hindoo institution of "child-wives" into this country.

"We in, Canada, to-day are living in a fools' paradise," stated Mr. W. W. Lee, immigration secretary of the Y.M.C.A., in speaking on this problem, who contended that quality immigration was lacking in this country, and that Canada had a real live immigration problem.

He termed it an economic problem, as well, on account of the fact that during a considerable period of years the very large percentage of immigrants have been males—the wives and families having been left behind—and the consequent provision for them in the pay envelope.

"Our naturalization law is criminal," declared Mr. Lee, and if it were not so serious it would be farcical." In this respect he advocated a five years' residence in the country, instead of three, as a passport for naturalization.

(*To be continued in our next issue.*)

THE THIRD ANNUAL MEETING OF THE CHICAGO MEDICAL SOCIETY

The Chicago Medical Society will hold its third annual meeting of Alienists and Neurologists of the United States, for the discussion of mental diseases in their various phases, July 14th to 18th, 1914.

It is the object of the Society:—

First:—To have a scientific programme. The titles of papers already received for this meeting indicate such a programme, including research work, that will be beneficial to every physician, whether connected with an asylum, sanitarium, or in general practice.

Second:—One that will be educational to the public as well; therefore one day is to be devoted to the discussion of the prevention of insanity and the conditions causing mental defectives, to which the public will be invited.

Committees have been appointed to report on the causative factors, in acquired insanity and inherited mental defectives, from alcoholism, epilepsy, infectious diseases, especially syphilis, and the effect of environment upon mental defectives, in their relation to criminology.

Resolutions will be introduced and discussed for the framing of such laws that will in a reasonable measure prevent these conditions, and such resolutions will be presented to the various State Legislatures and the National Government for their consideration.

Third:—A committee will report on what constitutes a modern hospital or asylum, and what the duties of the state to the physician who makes the care of the insane and mental defectives a specialty.

Arrangements have been made with the Post Graduate Schools of Chicago to give a complimentary course in all lines of work for the remaining days of July. This course will embrace internal medicine, surgery, and special regional surgery, cystoscopy, X-ray, brain pathology, vaccine making, and Wassermann reaction, etc. The superintendents and attending physicians are invited to avail themselves of this opportunity for the complimentary course. Tickets for admission to this course can be obtained from the secretary during the meeting. All communications should be addressed to Dr. W. T. Mefford, 2159 West Madison Street.

Selected Articles

EVOLUTION'S MESSAGE TO THE PHYSICIAN—A FEW WORDS OF INTERPRETATION

BY HENRY S. MUNRO, M.D., OMAHA, NEBRASKA.

The recent International Conservation Congress, held at Indianapolis, October 4, 1912, unearthed some startling facts that throw a tremendous light upon the problem of the medical profession, showing our shortcomings in relation to those individuals whose lives have been entrusted to our care. These facts are incontrovertible; they are presented to our consideration by a man who is neither physician nor sanitarian; and they are such as should awaken us to the realization that detecting microbes and applying the appropriate remedies to combat them, and diagnosticating gross pathological lesions and then cutting out the local manifestation of the diseased individual is not sufficient to meet the demands of an enlightened civilization.

Mr. E. E. Rittenhouse, conservation commissioner for the Equitable Life Assurance Society of the United States, in a paper read before this Conservation Congress, said: "The life-saving movement is still in its infancy. It has been directed so far almost wholly against contagious diseases common to infancy and early adult life, while degenerative diseases of middle life and old age, to which comparatively little attention has been paid, are steadily increasing. The average length of human life has been increased by increasing the proportion of people living in the younger periods, while the average duration of life of those who pass into middle life and old age has been constantly shortened. The principal items of life waste are due to the hazards, habits and conditions of life which civilization has introduced."

He further says: "A million and a half people in the United States are constantly suffering from preventable diseases. Dur-

ing the next ten years, over 6,000,000 lives will be needlessly destroyed, if present conditions continue."

There you have it put down in cold figures by a business man! For over thirteen years I have endeavored to awaken the profession from its long sleep to a consciousness of our duty as physicians, having pointed out the spirit of unrest and dissatisfaction existing among intelligent laymen all over the world, at our enthusiasm over studying pathology, with no effort to correct the abnormal habits of the individual, wherever and whatever they might be, as a means of arresting the conditions favoring the development of his special manifestation of disease.

We certainly *deserve* our "medicine" handed to us by a representative of a commercial enterprise—an institution organized for financial gain. Is it not a reflection upon our professional characters that a business institution, recognizing that sickness is a material liability and that health is a realizable commercial asset, is forced to hunt down and relentlessly make effort to exterminate a large proportion of preventable diseases, while we, the doctors, sit idly by, living like parasites on the life of the community? Is it not the limit when we are brought to face a situation, as Mr. Rittenhouse has made us see it, wherein we must be forced to a recognition of our failure to do our duty to our patients by modern industrialism as it pursues counterfeiters, forgers and other commercial criminals?

He tells us that our efforts have been directed so far almost wholly against contagious diseases common to infancy and early adult life. We know well enough that this is true. He further tells us that degenerative diseases of middle life and old age, to which comparatively little attention has been paid, are steadily increasing. We realize that this is also true.

WHAT ARE WE DOING FOR MIDDLE AGE?

What have we been doing for diseases of middle life and old age—the degenerative diseases? The ideal "up-to-date" pathologist and diagnostician has, and he is still doing so, arrogantly gloated over his wisdom in his ability to make a diagnosis while he waited serenely for a post-mortem to confirm his diagnosis. If he could prove the correctness of his prognostications by the autopsy examination, he had scored a feather, in his own esti-

mation and in that of a considerable portion of his unthinking colleagues; making no effort to get his unfortunate victim to conform to the physical, physiological, and psychological requirements of health, or to do as Mr. Rittenhouse suggests: "the individual should be educated to adopt the healthful habits of life."

Since evolution, biologically speaking, is the process by which any living organism has acquired its distinguishing morphological, physiological and psychological characteristics, and since each of our patients is a living organism, we are forced to recognize that the cause of the disease-process—be it designated mental or physical, organic or functional, morphological or psychological—must be found in the environing conditions of life, which favor the development of the morbid pathology presenting itself in the symptomatology of the patient.

In other words, disease is a misadaptation to environment. The environing factors contributing to its development may be endogenous or exogenous. They may be bacteriological, occupational, dietetic, social or psychological. In every disease-process, the pathological condition presented can be found to express the peculiar reaction of a special type of individual to the conditions of his environment, true to the law of evolution in general.

The recognition of the pathology of any disease-process, be it mental or physical, is the first step to the understanding of our patient, but, except in incipient diseases of bacteriological origin, the pathological manifestation is effect, and not cause.

To name the disease and apply treatment to its most marked symptomatic manifestation, whether treated by medicine or surgery, without educating the individual so as to enable him to readapt himself to conditions whereby the morphological, physiological, and psychological elements which comprise the entire personality can achieve a condition of stability commensurate with the life of the normal, healthy, happy individual, is to fail to meet the demands. Until this re-education is done, our work is a pretence and a farce, whether so recognized by the individual patient or not.

At the present time many methods of "treatment" are in vogue, which are tolerated by an all too gullible public only because of their ignorance. The paper of Mr. Rittenhouse is a healthy indication that the discontent and dissatisfaction ex-

pressed by some of the laity, and the quiet acquiescence to existing methods by others, will not always be so easily satisfied. People are not fools—at least not all of them. Let us not be deceived. Let us face the facts as they are.

In all portions of the world able physicians are emphasizing the importance of a broader scope for professional work.

"SCIENTIFIC" PHYSICIANS AND "PRACTICAL" PHYSICIANS.

Dr. Grasset, of the Montpelier University, is quoted as saying that the classics and a broad training in literature and philosophy are considered essentials in the education of a physician; that he has no patience with those who differentiate scientific physicians from practical physicians; that there ought to be but one category, in which the physician is at once scientist and practitioner. He is further quoted as saying that formerly diagnosis was based on ascertaining the anatomic condition of diseased organs, in being able to localize a heart-sound or a pulmonic râle. To-day it is far more complicated; above all, it is necessary to make a good clinical diagnosis, to take account of the functions of an organ. But, he continues, this is not sufficient to interpret obvious signs. It is necessary to collate a series of symptoms, to judge absolute and relative values, to classify and to co-ordinate them. Psychology, he says, is necessary in the education of the future physician not only for the study and treatment of mental and nervous diseases but also for all diseases; the mental condition of the patient must be considered, and the physician must have familiarized himself with the methods, processes of observation and general discipline of psychology. Humanity, according to him, has a fundamental need for good physicians, in the deepest sense of the word. A bad or indifferent physician may do mischief and is a serious menace to society.

EVOLUTION THE FOUNDATION STONE.

Scientific men, writes Prof. Victor C. Vaughan, build their idealism solidly up from the ground; they do not suspend it precariously from star-beams. The foundation stone of my philosophy, he continues, is the doctrine of evolution. We deal here, not with inscrutable forces which man cannot know, cannot modify, cannot study, but rather with potent factors that call

for the best effort in behalf of the race. What higher incentive can there be, for example, to keep one's self clean morally and physically than the facts derived from the study of heredity? And when the added undeniable influence of environment in the modification and improvement of the species is taken into account, it is apparent that every effort to improve the conditions under which men live is based on motives quite as dignified and worth while as the musings of the philosopher who claims to cultivate the good and beautiful for its own sake.

Dr. Vaughan is further quoted as pointing out that our knowledge of the spread of infection is the strongest factor in the social movements of the day; that disease still takes a heavy toll; that ignorance and deep-seated prejudices are often found retarding progress in unexpected quarters. According to him, the philosophy of science concerns itself with this world and this life, and reaches every condition.

"To widen the domain of knowledge, be it ever so little, to abate disease, to lessen pain and suffering, to decrease the burden of poverty, to brighten and ennoble the lives of others, to harness the forces of nature and make them subservient to man's will and contributory to his happiness, to make man more considerate of his fellow, to appreciate and perform his duties—these are some of the things that science has done and is doing."

One of the world's most distinguished psychiatrists, Dr. Paul Bourget, believes firmly in the almost unlimited future of this science and is persuaded that in particular the literature of observation—in which he includes history, criticism, the novel and the drama—will be enriched by it. According to him, the effort of genius consists simply in discovering by intuition the laws that scientists discover by humble and more patient methods. He sees these laws in action, and on this condition alone is he an artist. The term psychiatry and the science which it designates did not exist, he says, when the great creators of souls conformed themselves to the laws that this science was one day to formulate.

The proprietor of a great medicine-house—a man who is doing much to help doctors in his line of work—says, "manhood comes before money; character before cases; and the biggest thing any doctor can do is to save life." Says he: "I do

not minimize the value of the hypothetical; but the value of theory is for the research-worker. Our work is to cure. Are we doing everything we can to cure our patients?''

THE DIVINITY OF THE UNIVERSE.

Says the distinguished author and naturalist, John Burroughs: ''We are slow to wake up to a sense of the divinity that hedges us about. The great office of science has been to show us this universe as much more wonderful and divine than we have been wont to believe; shot through and through with celestial laws and forces; matter, indeed, but matter informed with spirit and intelligence; the creative energy inherent and active in the ground underfoot, not less than in the stars and nebulæ overhead.''

Further, Burroughs believes that some principle or force that we do not see is active in the ground underfoot and in the forms of life about us and which is the final secret of the origin of man and of all other creatures; that this something is the evolutionary impulse, this innate aspiration of living matter to reach higher and still higher forms. The rise of man from the lower order, he says, taxes our powers of belief and our faith in the divinity that lurks underfoot far more than did the special-creation myth.

Can we not see something more in those of our patients who seek our help, that we can appreciate and make them appreciate and use, than the weakness and inertia of the human flesh when they have failed to conform to the conditions whereby health and vigor of mind and body could be maintained? Shall we let old Farmer Burroughs see more in the earth beneath his feet than we can see in the individuality, or character, of our patient?

The message of evolution to the people of the world is being brought forth and utilized by business men, by educators, by manufacturers, by laborers of all kinds—just in proportion as their intelligence becomes capable of appropriating it; but for physicians it means simply this: It is the character of the individual, the psychic element of his personality, his intelligence, his reason which constitutes the *real self*. These constitute the character of the man himself, which uses as its instruments the emotions and the entire nervous system; and these are the means

by which all interaction takes place between the individual and his environment. Each of these connecting links evolves together with the man, and we consequently have in every human being a vast system of evolution. Human action—structural, physiological, psychological—is explicable only by the operation of an eternal consciousness, which uses brain, nerves, muscles, viscera, and the rest as its organs, and reproduces itself through them. "And I, if I be lifted up, will draw all men unto me." How true are these words as applied to every phase of present everyday practical life!—*Am. Jour. of Clin. Med.*

THE PLAIN, OUTSPOKEN FRIEND

The friend, so proud of his word outspoken—
("Brave as a surgeon, I excise this fault")—
Surprised when friendship is strained or broken
Learns he should sometimes consider a halt.

The surgeon dissects after life has departed,
The paraphernalia not cruelly flaunted;
For living nerves he is careful, kind-hearted,
His own throbbing nerves suppressed and undaunted.

Diagnose carefully, friend, in your frankness,
Don't prune our faults as you'd cut back a tree,
Some malign germs may spread by your blankness;
Oculists wise, both the beam and mote see.

Don't be so callous about any hurting,
Stop ere you call our errors pathetic;
Before the scalpel so blandly inserting,
Kindly administer some anesthetic.

Mary Allen Keller.

RECEPTION HOSPITAL FOR THE INSANE, TORONTO

A BILL affecting the City of Toronto was introduced in the Legislature by Provincial Secretary Hanna. This provides for the establishment of Reception Hospitals for the Insane by cities having a population of 100,000 and over. The plans and site must be approved by the Government and the institution must be under the control of the Provincial Secretary. The cost of the maintenance, after being established and equipped, in excess of the amount provided by the municipalities from which the patients are admitted, shall be paid by the Province.

"The income derived from moneys received from the municipalities for the maintenance of such hospitals," says the bill, "shall form a fund to be known as 'The Reception Hospitals for the Insane Fund,' which shall not form part of the consolidated revenue, but shall be used and applied for the same purposes and paid out in the same manner as the money appropriated by the Legislature for the maintenance of such hospitals."

The city has agreed with the Government to provide such a hospital in the eastern wing of the old General Hospital on Gerrard Street, but the Government is to maintain it.

SURGICAL SUGGESTIONS

In determining between malaria and pyogenic infection as the cause of a chill and pyrexia, a leucocytosis of 20,000 or less does not necessarily exclude paludism; it is sometimes found at the outset of a malarial attack.—*American Jour. of Surgery.*

Now that we are able to definitely establish a diagnosis of chancre by smear and by blood test, there is no longer any reason why a genital "primary sore" should not be excised. On the contrary, the prompt removal, by this means, of its many contained spirochete is highly desirable.—*American Journal of Surgery.*

The employment of narcosis in a case of "stiff and painful shoulder" may reveal a cause not otherwise ascertainable, e.g., subluxation.—*American Journal of Surgery.*

The Physician's Library

The Intervertebral Foramen. An atlas and histologic description of an intervertebral foramen and its adjacent parts. By Harold Swanberg, Member American Association for the Advancement of Science. With an introductory note by Prof. Harris E. Santee. Illustrated by sixteen full-page plates, none of which have ever before appeared in print. Chicago Scientific Publishing Co., Chicago, 1914.

This interesting volume of 101 pages embodies an investigation of the intervertebral foramina and their contents. In an introductory note by Prof. Santee a remark is made concerning Mr. Swanberg's monograph that "A study of his work will help to determine whether compression of the nerves at this point is likely to occur; and whether, therefore, there is substantial ground for the doctrine that such compression is the immediate cause of all or of a considerable number of pathologic conditions." The book is beautifully illustrated by a series of retouched photo-micrographs, of which there are some sixteen full-page plates. The animal chosen to furnish the necessary specimens for the purpose of study was the cat. A perusal of these pages will not only be of great scientific interest to the anatomist but will be of considerable value to the practitioner in medicine and surgery.

Principles of Surgery. By W. A. Bryan, A.M., M.D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tennessee. Octavo of 677 pages, with 224 original illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $4.00 net.

This book is intended as a guide to the student of surgery and does not presume to cover other than general principles. Such subjects as inflammation, with its sequelae of suppuration, gangrene, etc., are treated in a comprehensive style em-

bodying the modern conception of the pathological processes involved in these conditions. The portion of the work devoted to tumors is full and extensively illustrated. The classification is based upon the origin of the tumor growths from the three embryonic layers and does not embody the classification which has been suggested by Adami and which of late has been accepted by many pathologists. Such subjects as actinomycosis, tuberculosis and syphilis find a useful place in the volume. In each instance the treatment of the subject is necessarily curtailed within a comparatively small space, but the selection of material has been judiciously made. The volume opens with a short chapter on surgical bacteria.

It appears to the reviewer that the volume in question will prove of considerable service to those who are beginning their work in the study of surgery. The chapters are well written, the material has been well selected, and the book will certainly find a useful place in the hands of the student or practitioner.

Chronic Colitis. Its Causation, Diagnosis and Treatment. By George Herschell, M.D., Lond., late Senior Physician to the Kensington General Hospital and the National Hospital for Diseases of the Heart; late Physician to the West End Hospital for Diseases of the Nervous System and to the Farringdon General Dispensary; and Adolphe Abrahams, M.D. Cantab., Medical Registrar to the London Temperance Hospital. Longmans, Green & Co., 39 Paternoster Row, London, New York, Bombay and Calcutta.

As far as we are aware, this is the first English book on the subject of chronic colitis, and we are glad that some one has broken the ice. There is no question that cases of chronic colitis are becoming more and more frequent; perhaps we should say that the condition is now recognized a great deal oftener than it used to be. The volume is divided into two, Part I dealing with Causation and Diagnosis, and Part II with Treatment. The author has dealt, and we think wisely, with the subject in a somewhat elementary manner, the result being that the book will appeal more readily to the average practitioner. We bespeak for Dr. Herschell's work a wide circle of readers.

Ford Times, April, 1914. Published monthly by the Ford Motor Co., Detroit, Mich., and the Ford Motor Co. of Canada, Ltd., Ford, Ontario.

This is a well gotten up illustrated monthly periodical, printed on coated paper, full of snappy reading that will interest motorists. It is not all advertising matter, by any means, but, on the other hand, contains short, crisp articles that help to spend a quiet evening by the fireside when one cannot motor, owing to weather or other causes. A copy of the *Ford Times* can be procured for the asking from any agent of the Company.

Case Histories in Pediatrics. By John Lovett Morse, A.M.M.D., Associate Professor of Pediatrics Harvard Medical School; Associate Visiting Physician at the Infants' Hospital and at the Children's Hospital, Boston. Published by W. M. Leonard, Boston.

This book is one of the Case History Series published by W. M. Leonard. This, the second edition, has been enlarged and many new histories presented. The book is an excellent one, both for the student and the practitioner, and is exceptionally well arranged. The first chapter on "Normal Development and Physical Examination" alone makes the book quite worth while, as in it one finds the salient points without wading through a mass of statistical information. Also, many useful tips are to be found on the methods of examination, and the interpretation of one's findings. Special mention might well be made of the section dealing with the examination of the chest. The rest of the book is taken up with histories of actual cases, their diagnosis (with reasons), prognosis, and actual treatment employed. At times one wishes, however, that a few short notes on the progress of some of the cases had also been added. Each case is presented as a problem for the reader, which he may attempt to solve for himself, and then find out whether he has made a correct diagnosis or not. In short, the whole book is a series of clinics, approaching as closely to bedside demonstrations as a book could do. A well arranged index also makes the book one of ready reference. E. M. H.

The Practitioner's Visiting List. 1914. Thirty patients a week. Philadelphia and New York: Lea & Febiger.

This excellent pocket book for practitioners contains directions for its careful use with proper signs to be used in keeping it.

It also gives very useful memoranda of dentition, days of confinement, scales of weights and measures, and a thorough description, most valuable, of the analysis of urine. Incompatibles are listed. The periods of eruptive fevers, with distinguishing and comparative symptoms, are given briefly and clearly. Poisons, with their characteristic symptoms, are set in plain tables with their appropriate treatment and antidotes.

There is an intelligible and intelligent section on "Therapeutic Reminders," which enumerate the ready dealing with any disease and the list of remedies to be adopted.

Pages 28 to 32 give a description of the ligature of the arteries with a full length anatomical figure on which are marked the position of each main trunk with its principal divisions. This is an important and very useful element in the book. The rest of the volume consists of pages, plainly lined for the names of patients, visits, brief notes of cases, and fees paid and owing.

The handbook is well and neatly bound in red Morocco and is a great and handsome acquisition to the busy surgeon and physician.

W. B. Saunders Company, publishers of Philadelphia and London, have just issued an entirely new eighty-eight page illustrated catalogue of their publications. As great care has evidently been taken in its production as in the manufacture of their books. It is an extremely handsome catalogue. It is a descriptive catalogue in the truest sense, telling you just what you will find in their books and showing you by specimen cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 250 books, including thirty new books and new editions.

A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy—and you should have one.

E. Merck's Annual Report of Recent Advances in Pharmaceutical Chemistry and Therapeutics. Volume XXVI., 1914.

We recently received a copy of Merck's Annual Report and find that it is exceedingly complete. It is a digest of all that is most recent in Pharmaceutical Chemistry and is very handy as a reference book. This latest issue is even larger than last year's. The first article is a most instructive discussion on Lecithin, in which is brought out a good many not generally known uses for this valuable remedy. The volume is also supplemented by a timely article by Prof. Dr. R. Heinz, of the Pharmacologic Institute of the University of Erlangen, on the "Standardization of Digitalis Preparations."

The edition of Volume XXVI. is quite limited, being distributed principally among teachers of materia medica and therapeutics, as also medical and pharmaceutical libraries. Any physician, however, desiring to receive a copy may receive one by remitting 15 cents in stamps to Merck & Co., 26 St. Sulpice Street, Montreal.

A Text-Book of the Practice of Medicine. By J. W. Anders, M.D., Ph.D., LL.D., Prof. of Medicine and Clinical Medicine at the Medico-Chirurgical College, Philadelphia, etc., etc. W. B. Saunders Company, Philadelphia and London. 11th Edition. 1913. 1,335 pages.

Fully revised and brought up to date, no text-book of the size of this one surpasses it, and very few are its equal. As a mine of condensed information upon all possible phases and complications of disease it leaves nothing to be desired by either student or practitioner. The references and bibliography are very adequate, and unusual conditions, for instance jaundice or meningeal conditions in lobar pneumonia, are faithfully, though of necessity, briefly referred to. Particularly attractive to the student is the positive didactic style in which subjects are handled. So far as is possible in an art so constantly in a fluid state as is the question of treatment, the reader feels that he has here a degree of finality, definite and concrete advice

such as has stood the test of experience and can be safely followed. Many modern treatises on medicine are sadly lacking in the matter of suggestions for treatment, but not this one.

J. T. F.

HARVARD UNIVERSITY PRESS

The function of a University Press can be defined in a few words. Such an institution ought not to be regarded as a competitor of the commercial publisher, since its books should be chosen for their scholarly qualities and not primarily because of their probable financial success. On the other hand, a University Press is not necessarily a publisher of books that are unsalable and that do not interest the general public.

The Harvard University Press aims to publish the work of some of the leading scholars of the world and to issue, in addition, some text-books and volumes recording the results of research carried on at the University. Beyond this field it does not plan to go.

No one of its publications, perhaps, will have a very large sale, but many of them will be practically indispensable to certain persons or classes of persons in every large community.

The Press aims to co-operate with the local booksellers in reaching the individuals who are particularly interested in its publications by supplying detailed information concerning the scope of its forthcoming books and by providing dealers with special circulars bearing their imprints.

The first Catalogue of the Press, which has just been issued, presents brief descriptions of the books already published. As examples of books that for some persons will have a particularly strong appeal the following may be mentioned: Morse's Care and Feeding of Children, Turner's References on the History of the West, Ames' Legal History, Allen's Diabetes, Cary's Manual for Northern Woodsmen, Copeland's Cotton Manufacturing Industry, and Dewing's Corporate Promotions and Reorganizations.

Personals

The profession of Toronto have sustained a distinct loss in the removal from Toronto to his farm in Norfolk County last month of Dr. Price Brown. Dr. Brown's many friends learned with sorrow this spring that he was suffering from glaucoma and that he would have to relinquish both hospital and private practice at an early date. With the hope of saving the sight of the other eye, his physicians strongly advised this step, the result being that our esteemed confrere has moved permanently to his farm, where, with care and lots of outdoor life, we trust that he will regain his normal health and strength. We hope that Dr. Price Brown will frequently visit Toronto, where he has so many friends.

Dr. Andrew R. Gordon, 345 Bloor Street West, desires to announce to the medical profession that he has retired from general practice in order that he may devote himself to the study of the cardio-vascular system and its affections, and that, in the future, he will confine his practice strictly to consultation work. Realizing how important it is that the relationship of the patient to the regular physician be preserved, Dr. Gordon's work will be purely advisory, unless otherwise requested by the physician in charge.

Reinschild Chemical Company's New Quarters.

The Reinschild Chemical Company, New York, will move to more commodious quarters on May 1st.

This house has been established for a period of over forty years and is recognized as one of the conservative drug concerns of this country. They control the output of the Helfenberg Chemical Works of Germany, and are sole representatives of Prof. Dr. Ad. Schmidt for the United States and Canada.

Mr. Carl Reinschild, president of the company, realized that the business had grown larger than their present quarters provided. Consequently, beginning the fiscal year they will be more comfortably located at 47 and 49 Barclay Street.

THE LATE COMMISSIONER J. EDWARD STARR

We wish to take this opportunity of extending our sincere sympathy to our esteemed confrere, Dr. Fred N. G. Starr, on the lamented death a few weeks ago of his brother, Commissioner, the Reverend J. E. Starr.

Commissioner Starr in his comparatively short life accomplished much. As pulpit orator men have flocked in hundreds to listen to him; as court official he tempered justice with gentleness, laying his ear close to the heart of humanity, he discerningly counted the throbs and gave sympathy that turned the tide of many a soul's bitterness into hopefulness. Much was given him of power and winning personality, and of the much that " the good book " says shall be required, he gave full measure—he gave himself. He has surely earned his now attained membership in "the choir invisible," " which no man can number."

Commissioner Starr will be missed by the city of Toronto as an official who, though he stood on but the threshold of office, has been " tried in the balances," but not " found wanting." He will be missed by the Dominion of Canada as a sociologist of the highest order, and held in affection as one who gave his very life for the betterment of his fellow men; and last, but not least, he will be sorely missed by, what some know as " the underworld," the little waifs and urchins in our city who had learned to look upon our deceased friend as their big brother and pal.

How well the late commissioner put into action the words of the Master when He said, " Inasmuch as ye have done it unto the least of these, ye have done it unto me." W. A. Y.

A GRAND PRIX PRESENTED AT THE INTERNATIONAL MEDICAL CONGRESS

We beg to congratulate Messrs. A. Wulfing & Co., of London, England, on their having been awarded at the recent International Medical Congress, held in London, England, the only Grand Prize awarded in their particular section. This was awarded owing to the merits of their preparation, Sanatogen, and speaks a great deal for the excellence of the firm's pharmaceutical preparations.

A PHARMACEUTICAL REVIEW*

A RETROSPECT of the Pharmaceutical progress of the past few centuries discloses facts of an interesting nature. Step by step we see the transitions which overtook the existing forms of medication with the production of to-day's high standard of excellence and purity. Firstly we see the administration of the crude substance irrespective of Extractive matter; secondly follow the isolation of the more important active principles by solubility through the medium of suitable menstrua and affording us our Liquors, Tinctures, etc. Thirdly, enlightened by scientific research, active principles are isolated entirely void of inert extractive matter, e.g., Alkaloids, Glucosides, Acids, etc., whilst at a similar period, consequent on the demand for portability and palatability many of the existing remedies were compounded in the forms of Pills, Powders, Pastilles and at a later period compressed tablets. Whilst the objects aimed at were accomplished many features of an undesirable nature were simultaneously introduced. For examples, Pills frequently either became of bullet-like consistency or else softened to form a united mass; also, in keeping, volatile principles dissipated and their potency was lost. Powders were nauseous and were liable to deterioration, whilst compressed tablets introduced a grave doubt of disintegration confirmed at a subsequent period by results. The year 1907 ushered in the "Pulverette," a product presenting extreme portability and palatability and yet devoid of the undesirable features of pills, powders, tablets, etc. In Pilular manufacture equal diffusion of the active medicaments throughout the semi-solid mass is frequently irregular, whereas the trituration process of the "Pulverette" manufacture ensure this being done. "Pulverettes" consist of the uncompressed medicament encased in a frail chocolate, and sugar coating and free from any excipient. Slightly moistened and pressed between the thumb and finger the Pulverette coating breaks down and presents the medicament in its original physical and chemical condition.

The leading medical journals, e.g., *The Lancet*, *Medical Times*, etc., and also distinguished Continental physicians have unanimously declared the "Pulverette" the only real advance

* Publishers' Department.

in the manufacture of portable remedies. In price they are actually cheaper than tablets.

Another class of uncompressed products are "Aseptoids." Six different varieties exist, viz., Nasal, Antiseptic, Douche, Corrosive Sublimate, Mercuric Potassium Iodide, Potassium Permanganate, and Sodii Chlorid Comp. manufactured in definite strengths which conveniently admit of the preparation of definite percentage solutions. The manufacturers, Messrs. Oppenheimer, Son & Co., Ltd., London, will upon request to Mr. Van-Zant, 732 Yonge Street, Toronto, forward liberal samples and detailed prices of both products to practitioners.

GRAPE JUICE IN THERAPEUTICS

The majority of the profession know of the so-called Grape Cure establishments existing in Switzerland, Germany and other countries. Such establishments have of recent years become quite popular, as there is no doubt that it has been established that many forms of gastric and intestinal trouble can be cured by such treatment. That Grape Juice can be a valuable therapeutic agent, there is little doubt. There is, perhaps, nothing quite as refreshing to the fevered patient as Grape Juice properly administered. This is especially the case in the warm weather, when it can be served with ice. Grape juice, properly prepared, and bottled with care as used in the laboratories of Messrs. E. D. Smith & Son, of Winona, Ont., contains undoubted medicinal qualities, being not only exceedingly refreshing and invigorating, but mildly stimulating in character. Cases are known of typhoid fever, where no medicine has been used outside of Grape Juice, with favorable results. The attention of the medical profession is called to the Grape Juice bottled by Messrs. E. D. Smith and Son, and medical practitioners can rest assured that when they prescribe this particular brand for their patients, they can make no mistake. Smith's Grape Juice sells at as low a price as any other on the market, notwithstanding the fact that it is superior to, at least, many.

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The Canadian Journal of Medicine and Surgery

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Editorials

ALCOHOLISM AND TUBERCULOSIS

The relation of alcoholic poisoning to tuberculosis may be studied from at least two points of view—its agency in producing tuberculosis in the drinker; its agency in exposing the drinker's family to tuberculosis. Dr. Harold Vallow, Tuberculosis Officer, Bradford, England, who illustrates both these views in an article, published in the *British Medical Journal,* February 28th, 1914, says: "I have personally investigated 301 cases of tuberculosis, in Bradford, including men, women and children. Of 117 men, 33.33 per cent. were drinkers; 40.17 per cent. were moderate drinkers; 26.25 per cent. were teetotalers. Of 100 women, 8.00 per cent. were drinkers; 36.00 per cent. were moderate drinkers, 56.00 per cent. were teetotalers. Of the 84 children, in 7.14 per cent. both parents were drinkers; in 22.61 per cent. one of the parents was a drinker; in 29.75 per cent. one or both parents were drinkers." He also proves that alcoholism is more prevalent among the consumptive

patients than among the normal male population; it also appears to be in excess amongst the female consumptives.

That tuberculosis is a common cause of mortality among drinkers was shown by Dr. Lancereaux, in *France Medicale,* March 8th, 1895, when he wrote: "No circumstance is more apt to favor a predisposition to tuberculosis than excess in strong drink, if I can judge by the numerous observations in my possession." In L'Alcohol et L'Alcoholisme, a book published at Paris, in 1900, the authors, H. Triboulet and Felix Mathieu, show that alcoholic phthisis exhibits characteristics proper to itself, in respect to its localization and evolution. For instance, phthisis is usually localized at the apex of the left lung, and in front; alcoholic phthisis is found at the apex of the right lung and behind, in the form of granulations, which diminish the elasticity of the involved lung tissue, thus causing it to yield a dull sound on percussion.

Even if the excessive use of alcohol should not prove causative of tuberculosis in a drinker, its associates—late hours, irregular meals, poverty, crowding together in ill-ventilated bar-rooms—have a considerable bearing on the onset and progress of tuberculosis. So much so, indeed, that, if the men and women of the poorer class in any community are to be saved from the ravages of tuberculosis, the drinking habits of a good many of them will have to be greatly improved.

Prolonged, intimate contact of tuberculous patients with healthy persons is likely to lead to the development of tuberculosis in a certain percentage of the latter. Exposures of this kind are, unfortunately, too common. For instance, Dr. Vallow, found, in Bradford homes, such instances as the following: Eight consumptive patients sleeping with one other normal person in the room, ten with two others, and three with three others, and so on. It is necessary, of course, that the normal people, who so expose themselves to infection, should be warned of the danger they are incurring, as there is ample proof that such a danger exists. And, if the reply should be, "Poverty, but not my will, consents"; then, some adequate power should intervene to pluck these exposed persons from the tuberculosis-breeding hovels, in which they have been born and bred, through the alcoholism of their parents.

But you may say: All the wretched people who live in hovels are not drinkers. Quite true. Some drifted into them, not that they loved liquor, but that their bread-winners did love it. Many were born in hovels, seem just fitted for hovels, are powerless to make a personal effort to lift themselves out of hovels—they are easy marks for tuberculosis. But, nine times out of ten, the primary cause of their breakdown and premature death, the agent that sent them to the hovel, and keeps them there, is alcohol.

J. J. C.

DOCTOR QUENU'S DRESSING FOR BURNS

Dr. George Kuss, Head of the Surgical Clinic of the Faculty of Medicine of Paris, publishes a favorable notice of Dr. Quénu's dressing for burns in *Paris Médical,* February 21st, 1914, p. 285. This dressing, it appears, was introduced by Dr. Quénu at the Cochin Hospital, Paris, about twenty-five years ago. Dr. Kuss remarks, that it is customary for French surgeons to apply compresses of gauze directly to burns, without any intervening substance of an oily nature. Hence, the gauze compresses adhere to the burned tissues, their removal when the dressings are changed causing intense pain. Besides, the forcible removal of the gauze compresses spoils the growth of growing epidermis, and causes some oozing of blood—a matter of importance in a large burn, which requires to be dressed once or twice a day. To palliate, at least partly, these ill consequences in the treatment of burns, surgeons in France, as well as in other countries, have employed, and continue to employ, oily preparations, of which carron oil is the model.

In severe burns, accompanied by a good deal of suppuration, the local use of oil, though grateful to the feelings of the patient, may prove dangerous to him, because, in such cases, pus accumulates beneath the oil and, being absorbed into the blood, causes fever. Thus, at the Cochin Hospital, in some cases of severe burns, treated with carron oil, temperatures of 103°-104° F. were noted; after the oily preparation had been removed from the burn and the Quénu

dressing substituted, the high temperatures of these patients fell to the normal. Comparison has also been made between the results obtained by using different local treatments for two burned limbs of the same individual—one of which was dressed with the Quénu dressing, the other with a specific remedy for burns; the Quénu treatment proved victorious, by a good many days.

The Quénu treatment is applied as follows: After the parts about the burn have been cleansed, the burn itself is also washed with a weak, lukewarm solution of bichloride of mercury (1-10,000 or 1-12,000). This solution is applied by the dresser, by means of tampons, which, after having been immersed in the bichloride solution, are gently squeezed over the surface of the burn. Boiled water, containing a few drops of tincture of iodine may be used instead; and as in the case of the other solution, it should be applied lukewarm. A piece of Lister's green silk protective, large enough to cover the burn and extend four-fifths of an inch over on the sound surface is then prepared. With a scissors, small openings are cut in the silk protective, from one-half to three-fourths of an inch apart. The protective is then immersed, for some minutes, in boiling water. After removal from the boiling water, it is placed in a lukewarm, physiological salt solution (7-1,000). Prepared in this manner—fenestrated, sterilized, moistened with serum—it is placed in contact with the burn. A layer of gauze, wrung out of lukewarm, physiological salt solution is then laid over the silk protective: this

gauze ought to be so well wrung that it should not be wet, but only just damp. Cotton wool is placed as a buffer over the gauze, and the whole dressing is retained in position by a damp muslin bandage.

The Quénu dressing does not adhere to a burn and is easily removed from it; there is no oozing of blood or bleeding when it is removed; it prevents stagnation and absorption of pus, with their dangerous consequences. The bichloride solution is used only once, at the first dressing; lukewarm, physiological salt solution is used at the subsequent dressings. Dr. Kuss asserts that no substitute can be found for Lister's silk protective. Gutta percha tissue cannot stand boiling; if it is put into boiling water it rolls up into a rubber ball. Rubber cloth, oil silk, fine mackintosh give poor results. The physiological salt solution is less injurious to living tissues than plain water; it is a more favorable medium for the growth and reproduction of cells than plain water. The Quénu dressing should be used patiently and in the manner indicated above, until healing of the burn has taken place, the dressings being reduced in size, in proportion to the cicatrization of the surface. Exposure of the burn to the air, for an hour or so, has a good effect; but, only after the greater part of the burn has been healed, and but a small part of its surface remains uncovered with skin. By proceeding in this way, Dr. Kuss thinks a surgeon will get a more rapid cure of a burn than by any other treatment. He will also save the patient sufferings and ill consequences, which are preventable, and from which the patient has a right to be protected. J. J. C.

THE CROSS SADDLE FOR LADIES

Of late years, the cross saddle for ladies has become popular in Western Canada, and also in some parts of the United States. In Germany, it is also in vogue, so much so that the Kaiser found it necessary to issue an order, expressing his wish that the wives of German army officers shall discontinue the practice of riding astride on horseback. His objections are probably of the same kind as those which are entertained in many circles against ladies who don mannish attire.

Advocates of the side saddle claim that it is a more secure seat than the cross saddle for average horsewomen. There is a good deal of force in that argument, although the reason for it is not very clear. It may be, that the conformation of women tends to this: their thighs, as a rule, being round and fat, cannot grip the saddle like the long flat ones of the average man. Young girls and spare ladies would not be so inconvenienced. A formidable objection to the side saddle is that a horsewoman, if thrown, is liable to be dragged along the surface, her left foot being held by the stirrup; but the modern apron habit and detachable stirrup have largely overcome that risk. On the other hand, it is more difficult to learn to ride well on a side saddle and, with an indifferent rider, the strain on the horse and the danger of causing a sore back are much greater than when he is ridden astride. When a delicate lady rides on a side saddle, the throwing of her weight on the left foot is more likely to injure her pelvic organs, than if she

were to sit straight on a cross saddle. After a long ride, a horsewoman tires and, if on a side saddle, she is apt to bend her body towards the left side—an attitude which, if often repeated, may tend to make the right shoulder higher than the left one.

The use of either saddle by ladies is largely the outcome of their training. Those who, when young, have been taught to ride on a cross saddle are not likely to revert to the side saddle.

From the medical standpoint, there does not appear to be any valid objection to women riding astride. Recently, a medical correspondent of *The Times,* London, asserted that any woman, who habitually rides astride, endangers her health and courts disaster. He also mentioned, that the strain accompanying the cross saddle tends to displace certain vital organs or, at least, to render their supports insecure and to foster malpositions and prolapse. His arguments were discussed in *The Lancet,* London, March 21st, 1914. The correspondent of *The Times* contended, that the separation of the thighs on the cross saddle would cause relaxation of the pelvic floor and predispose to displacements; but this objection is surely futile. A proper seat in riding astride requires the carrying of the rider's feet in the stirrups, which are thrust in front of the perpendicular line of the body, the pelvic floor resting on the seat of the saddle; were the stirrups to be thrust backwards, behind the perpendicular line of the body, the rider would be exposed to be thrown over the horse's head, if the animal should plunge or fall.

However, with some little practice in riding, there should be a good deal of pressure on the pelvic floor, in riding astride—more than enough to counterbalance any relaxation, due to the separation of the thighs. Furthermore, if the horse should become restless or plunge, the skirts of the cross saddle are gripped by the adductor muscles of the thighs and, simultaneously, the muscles of the pelvic floor contract. Thus, the astride rider brings into play the very muscles, which would antagonize a displacement of the pelvic organs.

J. J. C.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

DIAGNOSIS OF SURGICAL DISEASE OF THE KIDNEY

By C. H. Gilmour, M.B., and W. A. Cerswell, M.B., M.R.C.S. (England), L.R.C.P.
Junior Surgeons, Grace Hospital, Toronto.

During the past ten years the study of diseases of the kidneys, ureters and urinary bladder has been greatly stimulated by the development of the newer methods of diagnosis. The cystoscope, the ureteral catheter, the renal functionating tests, and pyelography have all contributed to the advance which has been made. Of these the estimation of the renal function, and X-ray photograph of the ureter and pelvis are rapidly taking an important place with the other diagnostic aids of the research laboratories.

The cystoscope is an instrument of precision. It has revealed the living pathology of diseases of the urinary tract and has made clear many previously obscure conditions. It has practically done away with the exploratory incision on the kidney and ureter. Thanks to the untiring efforts of Nitze and Casper of Berlin, and Tilden Brown, Bransford Lewis, Buerger, Braash and others in America, the double ureter-catheterizing cystoscope has been brought to such a point of perfection that no case of kidney disease should be operated on without catheterization of ureters and the necessary renal tests made. For the kidney it affords a far more exhaustive means of diagnosis than any other hitherto devised.

To endeavor to make a correct diagnosis of disease of the kidney a careful history should be taken. Both subjective and objective symptoms should be carefully defined. It is necessary to ascertain the presence or absence of hereditary taints or tendencies, to know something about the habits and occupation of the patient, to learn of past illnesses or injuries, and to obtain a clear idea of the manner of onset and the sub-

sequent evolution of the present disease. Following this the urine should be measured for twenty-four hours, and a chemical and microscopical analysis made from a catheterized specimen. After these reports a careful examination of the bladder is made with the cystoscope. If pus has been present in the sample examined, is it from the urethra, prostate, seminal vesicles, bladder or kidneys? If blood has been found, is it associated with pain and pyuria, or is it an essential hematuria? If it occurs alone without other urinary symptoms it may make a diagnosis especially difficult.

As an aid in operative work we have found ureteral catheterization of great benefit. We are able to determine the presence or absence of a second kidney. We may locate a fistulous opening from the bladder to the ureter. We can collect and have separate specimens of urine examined. We can tell definitely the condition of each kidney, and its secreting power by the functionating tests. By pyelography we can show the size of the pelvis and calyces, and often show up stones, which otherwise would not be seen. We can facilitate a pelvic operation by placing catheters in the ureters. The feasibility of surgical intervention in renal disease can be more definitely determined.

No examination should be undertaken without due preparation on the part of the patient. The bowels should be well emptied by cathartics and enema. This is important to procure a good X-ray picture. Many renal stones have been hidden by a loaded bowel. The patient should have plenty of water to drink for twenty-four hours previous, and if there should be any retention from prostatic hypertrophy, a preliminary course of urotropine, gr. 5, t. i. d., should be given for at least forty-eight hours. If the patient is nervous or hypersensitive, morphine, gr. ¼, may be given half an hour before the examination. The entire area should be cleaned with a green soap and water, followed by an antiseptic wash. Sterile sheets and towels should protect the patient on all sides.

To anesthetize the urethra, we first introduce into the meatus a 10 per cent. cocaine solution on a swab, and leave it there from three to five minutes. In this way we cocainize the first inch of the urethra, which is the first of its two sensi-

tive parts, the other being the membranous portion of the posterior urethra. To anesthetize this, two tablets of alypin are introduced through a Lewis applicator, the instrument withdrawn, leaving the tablets to dissolve. After waiting five minutes, the cystoscope is introduced. If the bladder is extremely sensitive, a 4 per cent. solution of cocaine may be injected, but this should be avoided if possible.

For the dilatation of the bladder the urine may be used if it is clear, as it often is when several glasses of water have been taken some time before the examination. This greatly simplifies the technic, and avoids the traumatism of irrigation. If the urine is not clear the bladder is emptied and about 5 oz. of sterile water is introduced. If this is not clear the bladder is irrigated until a clear medium results. We find from 5 to 6 oz. of sterile water the most satisfactory amount for general examinations. After introducing the cystoscope (using Nitze improved) one sees, if the bladder be normal, the straw-colored appearance of the mucous membrane. To find the ureters the cystoscope is turned directly around in a half-circle to look at the posterior wall. The part of the bladder wall now coming into view is the bas fond. The cystoscope is now slowly withdrawn until it comes to an area of marked vascularity. This is the trigone. The point where the very vascular trigone meets the less vascular bas fond is called the interureteric ridge. Having found this ridge, the cystoscope is rotated following the ridge, and at its end the ureter is found. The shaft of the instrument is now raised, until the ureteral slit is made to occupy a point just below the centre of the field. The catheter is now passed about 1 c.m. beyond the limit of the field. The deflector is now raised, the movement of the catheter in the field being observed during this procedure. The tip of the catheter now comes into view, and when it is a short distance above the ureter, it is usually in a proper position for introduction, which is just above and slightly to the inner side of the ureteral mouth. By now raising the shaft of the instrument, and at the same time passing it farther into the bladder, the tip of the catheter is made to enter the mouth of the ureter. The catheter is now advanced until the portion within the bladder is seen to bend, and some

resistance is felt to the passage of the catheter, when we know the renal pelvis has been reached. Th average adult ureter measured from 27 to 35 c.m. The urine now starts to flow from catheters, and a normal excretion for one hour would be about 30 c.c., but this may vary more than the "normal" pulse rate. If anuria be present, it may be normal up to ten minutes, and the kidney considered healthy, but if it continues longer the kidney may be considered diseased.

The kidney in urology is the kidney injured by retention or infection. The fact of renal disease in most of these cases is evident enough, but the extent and distribution of the disease are ascertained with difficulty. We must find out if both kidneys are diseased. If nephrectomy is contemplated, will the remaining kidney be adequate to sustain life? Do the symptoms arise from the kidney or some adjoining viscus? To determine this we must first examine the urines separately, and then test the functional capacity of each kidney, to find out if it is impaired, and, if so, would the patient in case of nephrectomy die through insufficiency of the remaining kidney.

The newer methods of functional diagnosis include cryoscopy, the estimation of the electrical conductivity of the urine, the production of glycosuria by the subcutaneous injection of phloridgin, the production of experimental polyuria, and chromocystoscopy, i.e., the elimination by the kidneys of certain substances such as methylene blue, indigo carmine, or phenolsulphonephthalein. During the past few years Rountree and Geraghty of Johns Hopkins have proved the phenolsulphonephthalein test is incomparable so far as total function is concerned, and gives information frequently unavailable from any other source.

In using the phenolsulphonephthalein test, the patient must be given two glasses of water half an hour before the examination. One c.c. of phenolsulphonephthalein solution is injected hypodermatically, the ureters having been previously catheterized. A 25 per cent. solution of Na OH is now placed in two test tubes, and the urine allowed to drop into this alkaline solution. As the first trace of the drug appears in the urine a faint pinkish color will disseminate itself through the alkaline solution. It can be detected in a single drop of urine. As

the amount of urine increases the color becomes more intense. In an acid urine the color is a deep yellow, in an alkaline urine the color is purple. The quantitative estimation may be accurately made by the Dubosecq or Hellige colorimeter.

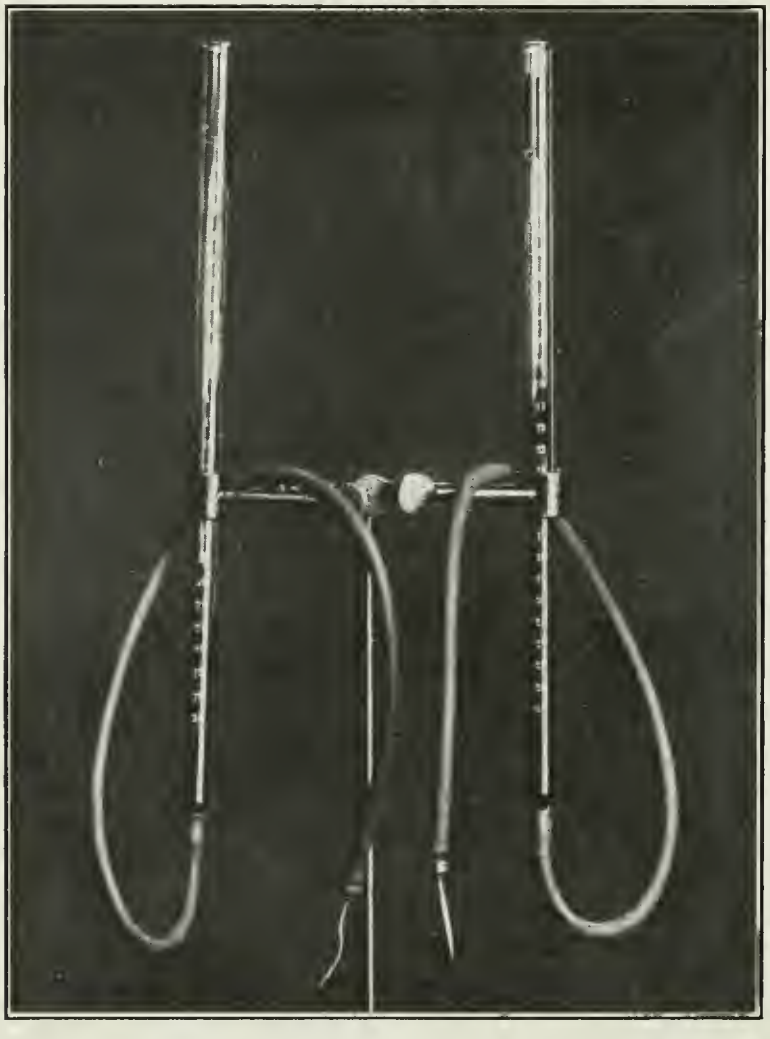
In normal kidneys the phthalein appears in from 5 to 11 minutes in the test tubes, and 40 to 60 per cent. is excreted during the first hour and from 20 to 25 per cent. during the second hour. The test does not seem to be interfered with in chronic interstitial nephritis, but in two cases of parenchymatous nephritis it was over twenty minutes before the drug appeared. In both these cases there was a large amount of albumin with granular and hyaline casts. In cardiorenal cases showing a low phenolsulphonephthalein output, together with cumulative phenomena, a severe lesion of the heart and kidneys is indicated. In one case of hydronephrosis we did not find a trace of the phenolsulphonephthalein in forty-five minutes, the other kidney having shown the reaction in seven minutes.

In three cases of prostatic hypertrophy of long standing, where there had been a large amount of residual urine, showed a retardation in the time of the appearance of the drug, and a decided decrease in the amount eliminated. In these prostatic cases the amount of drug excreted is the phenomenon of most importance. A marked decrease in the amount eliminated almost invariably means severe derangement of renal function, which may be either temporary or of a permanent character. Repeated tests will show the nature of the derangement, for in an acute nephritis the output will continue low, whereas if the derangement is merely functional or secondary to pyelonephritis, usually improvement will follow as a result of the treatment, and will be indicated by a decrease in the time of the appearance of the drug, and simultaneously an increase in the amount eliminated. In operative cases exhibiting a continued suspiciously low output, the use of nitrous oxide gas is suggested as preferable to ether in order to protect the kidneys. In cases where only a trace of the drug is excreted, operation should not be attempted, even though the patient presents no evidence of uremia.

The early diagnosis of hydronephrosis is one that can be aided greatly by the use of the ureteral catheter and X-ray. We

believe there are many cases of hydronephrosis wrongly diagnosed, and operations performed on healthy organs that could be prevented and the proper operation performed if an X-ray picture were taken of the renal pelvis.

The symptoms of intermittent hydronephrosis are those of



Apparatus for giving Collargolum by gravitation method.

pain, more or less severe, located in the kidney region, especially referred to the costo-vertebral angle. It is not referred along the course of the ureter, as in stone. It usually follows some severe muscular effort or straining. There is tenderness in the kidney and for some time after the attack. Gastric

symptoms may or may not be present, and there is seldom any rising of the temperature or pulse. Between the spells there may be a more or less pronounced ache or dragging sensation in the loin. It is our idea that hydronephrosis is present as soon as there is sufficient retention to produce an attack of pain of enough severity to call the patient's attention to the kidney. Urination is very little disturbed.

Intermittent hydronephrosis is the only acute disease affecting the kidney, which is not accompanied by increased frequency of urination.

To show up the renal pelvis by X-ray, we first draw off all the residual urine, and then inject a 15 per cent. collargol solution by gravitation, a picture of our apparatus being shown in an accompanying cut. We have two 50 c.c. titrating burettes with connecting rubber tubes and needles, which we insert into our ureteral catheters. The force of gravity only is depended on to cause the flow into the kidneys, the tubes being raised only far enough above the level of the patient to overcome the resistance of tubes and catheters. Allow the solution of collargol to run until a pain is produced, then ask the patient if she is sure it is the same pain she has had in previous attacks. Have the X-ray pictures taken immediately before catheters are withdrawn. The flow of collargol is stopped as soon as pain is experienced. Never use a syringe or other apparatus which has a pressure device to force fluid into the kidney, as there is always danger of renal overdistension and colic. In a few cases large hydronephrotic kidneys have been ruptured by the overdistension of the pressure method.

We consider a normal renal pelvis, one that will hold from 5 to 15 c.c. of collargol solution without giving any discomfort. A renal pelvis which contains over 15 c.c. may be regarded with suspicion, and if it contains from 25 to 50 c.c. may be regarded as true intermittent hydronephrosis. If it contains 50 to 150 c.c. it is an advanced hydronephrosis, all of which may be corrected without removing the kidney. If it contains over 150 c.c. nephrectomy is the only cure. In cases where the capacity is under 150 c.c., a plastic reconstruction of the wall of the renal pelvis, followed by nephropexy, will often restore the kidney to its normal functionating capacity.

Undoubtedly the most frequent surgical affections of the kidney are stone and tuberculosis; next to these come displacements, septic infections, pyelitis, pyonephritis, pyonephrosis or hydronephrosis, tumors and injuries. Most writers agree that, with the exception of certain cases of displaced kidney, the treatment of these disorders is always operative, and the earlier the better. Granting, then, that the existence of one of the above renal affections is sufficient reason for its removal, the problem resolves itself, first, into demonstrating its presence early, and, second, getting rid of it in the easiest possible way.

That renal tuberculosis is a frequently overlooked condition is shown by the records of Kapsammer at the Vienna General Hospital. He reports that from 1897 to 1907 there were found on post-mortem examination 191 cases, of which only two were correctly diagnosed and four partially so, while in 185 the disease was not even suspected. This with the statements of Kronlein that 29.8 per cent. of all surgical affections of the kidney are tuberculous, of Isreal that one-third of all purulent processes which may be traced to the kidney are of this character, and of Collinet that one out of every eighteen consumptives suffers from some form of genito-urinary tuberculosis, has led us to feel that the field was long since ripe for improvements in methods of examination, which during the past decade have strengthened both our diagnostic and prognostic knowledge and therefore laid the corner-stone for safer and more successful operative treatment.

We will not attempt to consider in detail the pathology, etiology, symptoms and treatment of renal tuberculosis, but would ask to call your attention particularly to the diagnosis of primary kidney tuberculosis, trying to unravel in some sort of fashion the clinical manifestations in the incipient stage of the disease. Our intention is to ignore the diagnosis of stumous kidney with which there are associated distinct tuberculous lesions; for with a constitutional invasion of the disease, with the large renal tumor, the ureter, bladder, and urethra seriously invaded, numerous tubercle bacilli in the urine, and marked dysuria, hematuria and pain, the positive diagnosis ought not to be in doubt.

As an illustration of the early type of case we would present the following reports:—M. W., female, age 26 years, school teacher, single, came to us in June, 1912, complaining of painful and frequent micturition of nearly two years' duration. Family history negative. Previous illness, had had some tuberculous gland removed from neck thirteen years ago. Had been in good health ever since. Urinalysis: urine constantly acid, Sp. Gr. 1009, pus present, red blood cells in small numbers, no casts. X-ray examination for stone negative. Cystoscope revealed slight congestion of the trigone of the bladder: ureteral ora normal. Ureteral catheterization: urine from right kidney normal, that from left contained blood and pus cells in small numbers. Several examinations for T.B. were negative. We irrigated left kidney pelvis with 1 in 1,000 silver nitrate solution, put patient on urotropine and a bladder sedative mixture, which gave great relief during the time she was taking it, but when left off the symptoms returned. In September of same year we again cystoscoped bladder. We then found left ureteral orifice red and swollen. With some difficulty the catheters were passed; blood and pus were still present in the urine from the left kidney, and urine still acid with low specific gravity. Catheterized specimen of urine was examined every 3rd day for T.B.; at the fifth examination T.B. reported present. The test for renal efficiency showed right kidney functionating normally. Our diagnosis of left renal tuberculosis was now complete. Lumbar nephrectomy revealed a large kidney, capsule studded with minute foci. There was one small cavity about the size of a hazel nut in lower pole. The ureter was not involved, the kidney was removed, a few drops of pure carbolic acid were injected into the ureter, the ureter invaginated, and dropped back. On third day the patient had recovered from effects of operation: in one month was up and able to leave the hospital, urine free of pus, blood, and T.B., and patient felt well.

Case 2.—C. S., aged 43 years, born in England, single, cabinet maker, family history negative; infantile paralysis when a child, pleurisy eighteen years ago, pneumonia six years ago, history of venereal disease negative. Patient had complained of dysuria for several months, also frequency of mic-

turition. Early in November, 1913, on attempting to rise in the morning was seized with severe pain in the left lumbar region. It soon passed away to some degree and he was able to go to work, but dull ache continued for three weeks, when the pain again became severe. He saw a doctor, remained in bed three days, but pain continued severe, and was confined to lumbar region. On December 1st he came to us, with above history. On examination marked tenderness was elicited over the left kidney, both anteriorly and posteriorly. Examination was negative. Urinalysis: Sp. Gr. 1008, acid, blood and pus, no T.B. X-ray examination for stone negative. Cystoscopic examination: base of bladder congested, left ureteral orifice markedly congested, large, and displaced outward and upward, with blood flowing from it. Ureteral catheterization showed blood and pus to be coming from left kidney, while urine from right catheter was perfectly normal. On microscopic examination T.B. were found in the catheter specimen from left side. Efficiency test showed that left kidney was functionating but slightly, while right was acting normally. On December 18th the left kidney was exposed and found to be large, congested, with capsule studded with tubercle at both poles; the cortex also contained tubercles, capsule adherent. Nephrectomy was completed, wound drained, and patient made a good recovery.

The reporting of these two cases, selected from a series, is designed to emphasize particularly the cardinal features of diagnosis of early renal tuberculosis. From these cases we find, first, that there are no pathognomonic evidences in the early stage of the disease; second, the distressing vesical disturbances, dysuria and pollakiuria, would appear to be the leading clue to the diagnosis; third, the repeated negative examination for tubercle does not exclude the disease, in some cases six, eight or more examinations being made before the T.B. were found; fourth, the absence of marked papillary hemorrhage, in the early cases; fifth, the physical evidences in the early stages are most indefinite and obscure. There may be some tenderness over the kidney, with slight rigidity over anterior abdominal wall, but in most cases this is absent. At best the chain of evidence is most unsatisfactory, and we must rely in our diagnosis of this condition on the urinalysis, micro-

scope, cystoscope, with ureteral catheterism, tuberculin, and tests for renal efficiency.

The urinalysis in early renal tuberculosis is by no means constant in the character of its results, for T.B. are not always implanted upon an absolutely normal kidney. The laboratory returns constantly report Bright's disease of varying degrees, and rightly so, for in the early stage the urine is that of renal congestion. The specific gravity is low on account of renal stimulation, increased water drinking, and later on to areas of interstitial nephritis. The acid reaction of the urine is one of the most notable features of the disease, and when associated with pyuria, is most suggestive of tubercle, particularly if the X-ray has eliminated stone. Blood is found in the urine from time to time, and, with the implantation of the process on the top of a papilla, there may be severe hemorrhage. Albumin may or may not be present; when due to early renal tuberculosis it is unilateral; by this it is distinguished from the albuminuria of the ordinary tuberculous patient which is bilateral. Casts, hyaline, granular and epithelial, are present in a small percentage of cases, but are of no particular value in diagnosis.

In the microscopic examination for T. B. in the urine, the urgent importance of repeated examinations cannot be too strongly emphasized. In this we recommend that all the urine voided be carefully collected and preserved by addition of 1 gr. acid boracic to the ounce and entrusted for examination to the most reliable pathologist obtainable. Even then, a negative bacteriological examination does not disprove the clinical diagnosis.

As to cystoscopy, in the early stages of renal tuberculosis, nothing may be noted about the patient's bladder other than an edema of the ureteral opening, the edema bullosum recently noted by Buerger and which he considers the most destructive initial feature in the diagnosis of the early disease. In the more advanced stages well defined caseous tubercles, and ulcers with undermined edges, healing at one part and spreading at another, are seen about the trigone and ureteral mouths. In old standing cases with thickening and shrinkage of the ureter the ureteric orifice is dragged upward and outward and appears like a funnel.

By ureteral catheterization. we are able to obtain and examine the urine from each kidney separately. In this way we are able not only to decide whether one or both kidneys are diseased but by means of one of the renal efficiency tests, preferably the phenolsulphonephthalein, we can measure definitely the functionating power of the second kidney.

Considerable difficulty, however, may be experienced in passing ureteral catheters owing to the extreme sensitiveness of the bladder. It may be necessary to make more than one attempt, and sometimes to wait for some weeks until an acute cystitis has subsided under suitable treatment before catheterization can be done successfully, or in order to avoid delay a general anesthetic may be administered. During this part of the examination care is necessary not to distend the bladder too far, or serious hemorrhage may result from the acutely inflamed ulcer or ulcers, if such should exist. Radioscopy may be used for differential purposes, but not with much hope of its confirming a possible diagnosis. Pyelography would not seem to be of any material benefit in the diagnosis of the early disease.

The tuberculin test, Von Pirquet's reaction of the skin or the Calmette may be useful, but we have never obtained any help from these methods where any real doubt existed. Injection of the sediment of urine into a guinea pig would appear to be an efficient diagnostic measure but this has not been any aid in our cases.

A hasty review of the foregoing signs would lead us to attach particular significance to the subjective complaints of dysuria and pollakiuria, for these would appear to be the constant and cardinal symptoms given by the patient in his distress. The objective signs are of little practical value, it being impossible to elicit at all times rigidity of the abdomen anteriorly or tender spots posteriorly. The general practitioner must confine his energies toward the examination of the urine, the significant features of which are a constant acidity and intermittent pyuria. The search for T. B. in the urine must rest with the expert pathologist. Cystoscopy, ureteral catheterization and tests for renal efficiency should be entrusted to one familiar with their technique. Too much importance can-

not be attached to these two means of diagnosis, since in our opinion tuberculosis of the kidney in its incipiency and early stage can only be diagnosticated by meatoscopy and ureteral catheterization, which as well as a complete bacteriological examination should be made in all cases of obscure pyuria or bladder irritability.

The classic symptoms of renal calculus, namely pain and hematuria, may or may not be typically present. Often there is merely a dull lumbar ache, constant or intermittent, with no pyuria and only occasional microscopic hematuria.

Pain of some form is present in seventy per cent. of cases. It may be of the fixed variety felt in the posterior renal area at the costo muscular angle, constant in character, of varying intensity and increased by movement or jarring. It may take the form of renal colic, a description of which need not be mentioned, or it may be referred pain, felt in the foot or heel, in the thigh or leg, and sometimes in the testicle or labini. Bladder pain with frequent and urgent micturition is sometimes present in renal calculus when the bladder is quite healthy. The most important reflex pain is that in which pain is referred to the second kidney (reno-renal-reflex).

Pain is dependent more upon the location of the stone than upon the shape or size. If it is situated low down in the renal pelvis where it may easily engage in the lumen of the ureter, more suffering is produced than if it were in the body of the kidney. Then again a very large calculus which completely destroys the organ may give rise to no acute pain. A case of this kind came to our notice a few months ago. The patient, a male, forty-four years of age, emaciated, with chronic cystitis, but complained of no pain, had acute pain in right side twelve years before, was treated for appendicitis, and said to have been cured. X-ray revealed stone in kidney. At operation a calculus size of a hen's egg along with the shell of a kidney was removed. Our explanations were that the pain twelve years previous had been an attack of renal colic, at which time hydronephrosis commenced, infection followed, and the calculus, after doing all the destruction possible, grew so large that it ceased to be a source of painful irritation and instead of a stone in the

kidney, it was an instance of the remains of a kidney around a stone.

Of 251 patients operated on for renal stone at the Mayo clinic from January, 1900, to January, 1913, 117, or 46 per cent. had acute pain referred to the area of the kidney with anterior and downward radiation. In 30 patients, or 12 per cent., the pain was referred to the region of the gall bladder, with posterior radiation, suggestive of gall bladder disease. In 32 patients, or 12 per cent., pain was referred to the lower abdomen with upward and lateral radiation, suggestive of appendicitis. Pain was referred to both sides in 56 patients, or 22 per cent., largely to the affected side in 40, or 15 per cent., and more to the non-affected side in 16, or 6 per cent. Pain was absent in 21, or 8 per cent., and in 26, or 10 per cent. pain was general over the abdomen.

It must be remembered that lesions of the kidney, other than stone, as well as disease not located in the kidney, will cause similar localization and radiation of renal pain, as stone in the ureter, acute ureteritis without stone, passage of clots, pus or debris, hepatic colic, movable kidney, new growths, hemorrhagic nephritis, nephritis dolorosa, crisis in locomotor ataxy, and hysteria. In any of these conditions there may be pain indistinguishable from pain and colic due to stone in the kidney.

It would be seen, therefore, that the character and subjective localization of pain associated with renal lithiasis is so variable that it offers but few data of exact diagnostic value. We must therefore get away from depending on "cardinal symptoms." They are sometimes actually terminal events. Just as in gall bladder disease it is no longer justifiable to wait for jaundice before making a diagnosis and advising operation, so in a suspected renal calculus, it would be desirable to locate the stone and extirpate it before the kidney is severely damaged, or the patient's health ruined by infection. In order to exclude lithiasis it becomes necessary to radiograph the abdomen for practically every indefinite pain which is not accompanied by other clinical data to identify it in this respect.

Radiography has revolutionized the diagnosis of renal calculus and has replaced exploratory operations upon the kidney

in cases of suspected calculus. So certain and precise has this means of diagnosis become in the hands of a skilled radiographer, that the proper reading of a radiographic plate of good quality may override an opinion based on symptoms. Clinical data, however, are of the utmost consequence and should never be relegated to the background, as there are few if any cases in which they do not render the work of the radiographer easier and more valuable.

It is well known that a radiographic shadow located in the region of the kidney does not necessarily indicate renal lithiasis. The majority of such shadows can be recognized by their shape, position and general characteristics as being caused by renal stone. The diagnosis of the remainder is dependent on the data of identification given by means of the cystoscope.

Shadows occasionally found closely simulating that of renal stone are caused by calcified areas in cicatricial renal tissues, by calcareous deposits in hypernephroma, by cysts with a calcareous lining, or by organized blood clots with slight calcification.

Shadows in the perirenal area may be due to gall stones and are of particular interest. They are often recognized by their high location (on a level with the eleventh rib or above), their circular form and their multiple overlapping grouping. The periphery of the stone usually casts a more definite shadow than the centre, so that the resulting shadow is that of a ring. When, however, the gall stone shadow is single, lies in the area of the kidney, and has the irregular shape and uniform character, it may easily be mistaken for renal stone, and pyelography will be found the best and often the only method of identifying its origin.

After demonstrating a shadow, the next step is its identification, and, if caused by stone in the kidney, its localization. Although the position of the shadow can frequently be ascertained by its relation to the outline of the kidney as seen in the radiogram, because of technical reasons the shadow of the kidney will often be indefinite. If there be a large definite shadow in the region of the kidney and cystoscopic examination reveals a normal ureter, and ureteral catheterization obtains purulent urine containing no T. B. from the affected side, the diagnosis of renal stone would be reasonably certain. If, however, the

shadow in the radiogram is small and the urine from the affected kidney is comparatively clear, the best method both of identification and localization of the shadow is to compare the relation of the shadow in question with that of the injected pelvis as in pyelography.

The majority of stones in the kidney that are large enough to be visible in the radiogram will cause recognizable changes in the renopelvic outline as shown in the pyelogram. If no change from the normal is noted the shadow in question may be considered extra-renal. Practically every renal stone, whether in the cortex or pelvis, will be accompanied by more or less dilatation of the pelvis or individual calyces consequent to inflammatory retraction or to mechanical obstruction. In a few instances only, the change in the reno-pelvic outline will be so slight as to be of no value in the diagnosis. Whereas in previous years exploration for renal stone was not infrequently made with negative findings at operation, the marked increase in the degree of accuracy in diagnosis was made possible largely by means of pyelography.

SOCRATES ON AESCULAPIUS AND THE AESCULAPIANS*

By Principal Maurice Hutton.
University of Toronto.

It is easy, said Socrates, to praise Athens to the Athenians; easy, on the same principle, to praise medicine to medical men; and as I want an easy theme to-night—when summoned at the last moment to replace an eminent absentee—I will choose that one and practise an easy virtue: all the more that the gentlemen whom I address do not practise an easy virtue, but one of the most arduous.

I can indeed hardly exaggerate the awe and admiration which I feel for your virtues and profession; not a week passes but I am lost in wonderment thereat, and I thank my lucky star that I was never called to practise it.

For just consider, gentlemen, how could any man bred up on Plato, imbibing from his tender years a Socratic habit of invincible dubitation, how could such a man aspire to your intellectual courage and to your sublime faith?

(Courage is but another name for faith, said the late Professor James, and faith, albeit unduly derided, is but another and a humbler name for courage.)

Well gentlemen, Socrates starts out always with the proposition from Euripides—the Bernard Shaw of his age—with the proposition and the doubt, "Who knows if life be death and death be really life?"

Imagine a man starting the practise of medicine with that doubt! Why, it annihilates your profession at the very outset: it cuts away the ground beneath your feet. You all courageously bid that doubt avaunt; you all assume with faith that life is life, and is to be preserved alive at all costs; at the cost of a leg, of two legs, of an eye or two; even of a stomach and of bowels; you all assume and doubt it not, that death is death and is to be fought off to the last ditch. What courage and what faith is yours to face and put to flight that comprehensive doubt.

And Socrates follows up this general and pervasive doubt by a second almost equally paralyzing to your profession:

*Address delivered before The Aesculapian Club, Toronto, April 1914.

"What is the use of keeping weaklings alive?" he asks. What is the value of the life of a man who being without a constitution, fights by the doctor's aid a losing battle, and dying hard by inches, attains, by means of science, and half-dead, to the threshold of old age; sans eyes, sans teeth, sans mind, sans everything? What is the use of practising your medicine for such as him? he asks. Best, says Plato jauntily, write him a prescription of cheese and Pramnian wine—Maclaren's cheese and Canadian wine would do the trick as well—and if that does not take him off he has a constitution which entitles him to live, and he may do something with his life worth while.

But manfully you put this doubt aside no less, and help the poor valetudinarian to keep the grim visitor waiting in the cold; he knocks and knocks; he rings and rings, but you answer not; and he is half frozen with waiting and is robbed of half and more than half his terrors, when at last he is admitted to a patient unconscious and well-nigh dead without him; no superfine moral scruples of the moral value of your patient's life assail you, daunt you. You fight the world of moralists—the mighty world of moralists—unflinching. You are quite unlike the moral captain of the Aegean packet boat, whom Socrates celebrates with unhesitating praise, who only charged a dollar to a rich passenger for landing him safely from Ægina upon the wharf at the Piraeus: because, forsooth, it was quite an open question in the captain's mind whether he had conferred a real favor on the traveller; whether it would not have been more merciful, more wise to drown him once for all in the waters of the Archipelago, and so to cure him past a doubt of all life's fitful fever.

No such fantastic and Socratic scruples for you; if your patient be a rich man, you charge him richly; if poor, poorly, for the dubious benefit of life; if he be a poor professor, you let him off most lightly in your bills, but benefit him no less; but in either case, you never stop to ask with far-fetched Quixotic fancies, "Were he not better dead?" Nay, even though he be over-drinking and over-eating, you keep him on your list, and display a shining morning face across his tumbled pillows, and charge him nothing extra for his intemperance when you render him the bill, which is large or small, according to his pocket.

not his guilt. Like a greater and even more beneficent power you deal not with us after our sins, neither charge us according to our wickedness. And that in itself alone in this commercial age and nation requires some courage; some courage so to graduate your charges according to our pockets. Other men, I mean, other professions, advertise "one price," "fixed prices"; you gentlemen advertise not at all; but frankly put aside these vulgar commercialisms one and all, " fixed prices," " one price," and advertisements.

Frankly, like an Italian or a French artist, or like a foreign dealer in "objets d'art," in objects of "bigotry and virtue," you charge each man according to his ability to pay; other professions like mine fall impartially upon the rich and poor, just and unjust, like the sun and rain, but you, like a benevolent modern government, make the rich among your clients pay for the healing of the poor, and fall upon them like the income tax or the succession duty, with a graduated scale of mercy. You confront unflinching the commercial men and their business methods, and reject them firmly.

And your faith in your profession soars to higher heights, more intellectual, less simply moral than this. Some of you have heard before the episode I am going to report, but I repeat it now; it dwells indeed so continuously in my mind that it rises automatically to the lips. Some years ago I heard of Professor Loeb, the original researcher, and of his ambition to vanquish death altogether; incredulously I inquired from one of your most eminent lights, and he rebuked my Socratic incredulity. He assured me there was something in it; much in it. Never shall I forget the consequent excitement with which I read one morning in the *Globe* across my breakfast table that the professor had concluded successfully his experiments; that he was ready to immortalize not himself only and his profession and Chicago, but the race as well.

I caught up hastily my hat; I started off perfunctorily to morning prayers; from force of habit rather, for already I was in doubt if morning prayer was not now cancelled sine die. I read them, however, to a few listeners once more, just classical students, I surmised, who did not read the papers; and then I raced down town to countermand a life insurance policy, on

which I had paid a too hasty premium the day before. I noted with astonishment that everything on Yonge Street seemed the same; no stir as of excitement; no throbbing of an unwonted jubilation; past the phlegmatic and unimaginative throng I brushed, whom nothing could shake into life, not even immortality, who would not believe, though one should release them even from death, and reached the insurance office breathless, and asked the withdrawal of my too punctual cheque; the agent was civil and obliging, ready to return it, but calm, impassive, quite incredulous and indifferent to Professor Loeb and to original researchers; and gradually it dawned upon me that I had fallen a victim again to the yellow press.

Gentlemen, we all die daily—like, yet unlike, the apostle—at the hands of the yellow press: but if that day I lived forever—for forty minutes—through the yellow press, it was not through the yellow press alone; I owed that transient immortality partly to the faith and the ambition and the confidence-in-medicine and in research, which belong to the shining lights of your audacious and Promethean profession.

I have been talking of the courage and confidence of the physicians and the researchers; of the men who can diagnose a disease at five minutes' notice in a man they have never seen before, and sometimes will never see again; a man who has never, it may be, had a disease before, and who perhaps will never have a disease again; the man of one disease, "single-disease Anonymous;" which he enjoyed only during the five minutes in your office when you diagnosed it in him.

But I must not be understood to belittle the surgeons either. Their courage is not less patent. We all know families whose every member has been relieved in one short year of his or her vermiform appendix, and in whose case we are waiting to see—to quote the late Dr. Sullivan—whether your surgeons having finished with the right side will now go down the left side next and operate there also. It requires sublime courage to diagnose a disease in such a case—to remove an appendix in such a case. I wonder sometimes, as I lie awake at nights, after failing to diagnose some disease of grammar in Plato, to perform some operation upon the constricted bowels of his syntax, how you can sleep warm and peaceful in your beds after your so confident diagnoses and operations. Possibly, I

know not, this is one of the contributory reasons, besides your loyalty to your patients and profession, why you sleep lightly and jump up at a moment's notice and hurry out into the dark to relieve pain; if it be so, let it be counted unto you for righteousness that you throw off sleep so quickly, and let it be counted unto you for courage that you can sleep at all.

But there are yet other forms which your courage takes. Prohibition is in the air. Temperance is all about us, yet you gentlemen have the courage still—I heard it only yesterday—to inject alcohol into your patients when the doctors of Europe have lost the art and heart, before this wave of anti-alcoholic sentiment. Only yesterday a cablegram came to Toronto from the south of England, asking a prescription and advice from a doctor in Toronto, how to inject the deadly poison to relieve tic douloureux. The Englishman had quailed before the ordeal. From long disuse he had unlearned the baleful drug. But you face the teetotal world in arms unwavering, and venture still to use the two-edged potion, which makes glad the heart of man and sad the heart of woman, but sometimes seems alone to give relief to racking nerves.

You have the courage to follow the immoral laws of nature against the ideals of moralists; it is rather a fearful form of courage.

And sometimes you practise a courage more terrible still even than this one.

You follow that terrible Nature which is red in tooth and claw and sacrifices every species to the life of other and stronger species, and you shock the poet and scandalize the preacher by sacrificing animals to human life; animals killed for purposes of inquiry and discovery and experiment: (not, I think, on this continent as in callous Southern Europe, killed for mere curiosity, not "butchered to make a student's spectacle.") I sympathize necessarily with poet and preacher, but I cannot deny that there may be courage (as well as other qualities less high) in so following ruthless nature against the rising tide, against the very floodtide of modern humanitarianism which is now beating on our shores.

The question is dark and painful. I would not mention it in jest if jest were only jest. But I hold a brief for Plato, who always jests and never jests; who never jests without being

serious, nor is ever serious without jesting. For he felt, I think, that life is a maze and a more than Minoan labyrinth, wherein the wildest dream of man's imagination may be but literal fact, wherein the solid-seeming substance of his common sense may be but hollow fantasy.

You fight humanitarianism, but you are humane to human patients; very merciful to poor and stupid clients. I shall not readily forget how, one afternoon, I found myself in the office of the late Dr. James Burns when I heard the telephone ring. He took it down, listened, said he would call, listened again, made a grimace, hung up the receiver quickly and sat down.

"The man says," he remarked after a moment or two, when he had regained his composure, "that his wife is ill. I said I would call. He says I am a damned fool if I cannot prescribe without seeing her. I may be a damned fool, but I would rather see her, though he has not paid me for six years. There is no use in a damned fool's visit; but I will send Dr. Gordon, who is no fool, and who will not bother him for payment." Surely, gentlemen, you also temper the wind to the shorn lamb and to the silly sheep; as we have read into Holy Writ, though it be only in poor Lawrence Sterne.

But surely, in conclusion, I may place your humanity and your services to humanity on a simpler and much broader basis. You it is, after all, who preside over the entrance of new life into the world; new life, and with it in due time new youth, new love; new life, first youth, first love. It is in these three things, new life, first youth, first love, that poets and philosophers alike have agreed, each in his various mood, with delight, with acquiescence, or with regret, have agreed to discern the primal end and aim of this mysterious world: as Clough, the Socratic poet of Oxford, has it,

"High-titled cares of adult strife,
Which we our duties call,
The trades, arts, politics, of life,
Think, have they after all
One greater object, end or use,
Than that for girl and boy,
This punctual earth may still produce
Those golden flowers of joy?"

THE FAMILY PHYSICIAN AND PUBLIC HEALTH*

By Graham Chambers, M.B., Toronto.

In view of the important advances which have recently been made in Preventive Medicine, and the progress which is being made year by year in this branch of our profession, it has occurred to me, as I am sure it has to other practitioners of medicine, that much more could and ought to be done in regard to the prevention of disease than is actually being accomplished at the present time. The object of this paper, therefore, is to suggest certain modifications in the relationship between the physician and his patients, which appear to me to be desirable, both from the point of view of the prevention of the development of disease and the recognition of its presence in the earliest possible stages.

The active practice of preventive medicine is at the present time chiefly in the hands of a special department of the profession, namely, that devoted to the care of public health, and the ordinary general practitioner, who is qualified both by education and experience, to advise his patients in regard to the prevention of disease, usually does comparatively little from this point of view.

This is, no doubt, partially due to the defective education of the laity in matters pertaining to the prevention of disease. As regards hygiene the knowledge of the public in general is comparatively superficial and limited. They are taught from early childhood the advisability of avoiding contact with the various infectious diseases which are referred to in the Public Health Acts, such as smallpox, diphtheria and scarlet fever. They know that typhoid fever is generally contracted from contaminated milk or water, and have some vague ideas in regard to the preventive measures which are necessary in guarding against the spread of tuberculosis, but beyond this they are more or less ignorant with reference to these matters. They

* Delivered before the section of State Medicine, Academy of Medicine, Toronto.

know practically nothing about the great majority of diseases, and the manner in which they can be prevented or minimized in severity, and consequently rarely seek the advice of the family physician excepting for the cure of a disease. This is an essential weakness of the science of medicine as it is practised at the present day.

The diseases mentioned in the Public Health Acts are not by any means the only ones which can be prevented to a certain extent, or at any rate considerably diminished in severity, by detection and suitable treatment in the early stages. Let us for a moment consider what can be done in this connection in a few common diseases which cause considerable mortality.

1. *Pneumonia.*—This is a very dangerous and fatal disease. In the Province of Ontario, during the year 1912, it was the cause of 1,629 deaths, or a little over five per cent. of the total number of deaths which occurred in the province during this period. During the same year typhoid fever caused 483 deaths and tuberculosis of the lungs 1,920 deaths. Pneumonia, therefore, is responsible for about four times as many deaths as typhoid fever, and for almost as many as pulmonary tuberculosis. In view of this fact, does it not seem rather extraordinary that so much energy is being expended in endeavors to diminish the incidence of typhoid fever and pulmonary tuberculosis, whilst practically nothing is being done in regard to the prevention of such a fatal disease as pneumonia? All three are infectious diseases, the exciting cause of each being a special micro-organism. Typhoid fever, however, differs from tuberculosis and pneumonia, in that the micro-organism is by far the most influential factor in its causation, whereas in pulmonary tuberculosis and pneumonia the predisposing factors become of paramount importance, such as defective hygiene, defective nutrition, lowered resistance, and chills. Individual predisposition to the incidence of disease has not in the past received the attention which I think it deserves, and the majority of infective diseases are set up by their respective germs only when the resistance of the body has been reduced in some way. This is a most important point, which should always be kept in mind when educating the public in matters pertaining to the causation of disease. As regards pneumonia, I believe that the

chief direct etiological factor is exposure to cold at a time when the resistance of the body has been lowered by various causes, both mental and physical, such as overwork, worry, deficient nutrition or defective hygiene. Why should not the laity be taught this important fact? If they fully realized it I believe that the mortality of pneumonia would be reduced from twenty-five to fifty per cent.

2. *Cancer.*—During the year 1912 this malignant disease caused 1,778 deaths in the Province of Ontario, or about five and one-half per cent. of the total deaths in the province during this period. It is therefore one of the most dangerous and fatal diseases with which we have to contend, and practically nothing is being done in educating the public in regard to the nature of it.

There are a few characteristics of cancer which I think it is highly desirable that every layman should know. They are as follows: (1) That cancer in its early stage is invariably a localized disease, and is therefore, as a rule, curable by surgical treatment. (2) That in many instances the malignant growth is preceded by a benign lesion. As regards cancer of the skin this statement is always true, and it probably applies also to cancer of the lip, mouth, tongue, and other parts of the body. (3) That in deeply seated cancer of the breast or the internal organs it is frequently impossible for any physician to determine before operation whether the growth is benign or malignant. If efforts were made to educate the laity along these lines I feel confident that they would lead to considerable reduction of the mortality from the disease. If the practice of medicine were properly organized from a preventive point of view there should certainly be no deaths from cancer of the skin or lip, and the mortality from that affecting other organs should be materially diminished. For instance, a tumor of the breast in a woman over forty years of age, the existence of which has been recognized for a few weeks, should invariably be removed, in view of the fact that we have at present no means of ascertaining before operation whether it is of a benign or malignant character. It is also probable that the mortality from cancer of the stomach and uterus, which is now considerable, could be greatly reduced by early recognition and treatment.

3. *Arteriosclerosis.*—This is a very common pathological condition, possibly the most common disease of late adult life. It is difficult to give even an approximate estimate of the mortality due to it, owing to the fact that disease of the blood vessels leads directly to disease of many of the organs of the body, including the heart, brain and kidneys. It thus lowers the vitality and resistance of the whole body, and in this way predisposes to pneumonia and other infections. Some idea of its influence on mortality may possibly be obtained from the following statistics. In the Province of Ontario, during the year 1912, there were 2,726 deaths from organic heart disease, 1,029 from cerebral hemorrhage, 848 from Bright's disease, and 549 from paralysis. It is justifiable to assume that in a considerable proportion of these cases the primary cause of the condition resulting in death was arteriosclerosis.

The prevalence of arteriosclerosis and its serious results demonstrate very clearly the necessity for the family physician from a preventive point of view, inasmuch as it is a well-known fact that arteriosclerosis rarely manifests itself as a primary affection before the age of forty. If people were under the supervision of a physician between the ages of forty and fifty, which represents the period of the greatest stress and strain, there is no doubt that in many cases its onset could be prevented or materially delayed, and its mortality considerably reduced.

4. *Heart Disease.*—The two principal causes of heart disease are arteriosclerosis and the various infections. We have already referred to arteriosclerosis. As regards infections, the infective agent which most frequently has an injurious effect upon the heart is the micro-organism of acute rheumatism. Acute rheumatism is an infective disease which I think is similar to pneumonia, in that lowered resistance of the body is the most important etiological factor. It is possible that in a considerable number of cases the primary focus of infection is in the tonsil, but predisposing causes, similar to those which are so influential in the causation of pneumonia, such as anemia, overwork, chills, and bad hygienic conditions, for instance sleeping in a poorly-ventilated room, are very important factors.

5. *Disease of the Stomach.*—Diseases of this organ lend themselves especially to preventive measures, because many of them

are due chiefly to errors in diet, rapid eating, defective teeth, and nervous disturbance. Moreover, the detection of any gastric disease in its early stage always renders its treatment easier and more effective than when only recognized after having existed for months or years. Gastric ulcer, for instance, is frequently preventible, and even if it cannot be prevented its detection at an early stage is of great value, in view of the serious complications which sometimes supervene. Again the only hope in the treatment of cancer of the stomach is dependent upon its early recognition.

A very large number of other diseases might be mentioned, in which preventive measures would have an important bearing in regard to mortality or severity. For instance, otitis media would be a comparatively rare condition if infection of the nose and naso-pharynx could be prevented, and the frequency of chronic rheumatism and arthritis deformans might be considerably diminished if pyorrhea alveolaris was more often detected in its incipient stage, and measures immediately taken to prevent or cure it. Moderation in eating and drinking would, undoubtedly, diminish the frequency of gout and diabetes. Other common conditions, in which delay in treatment tends to render cure certainly more difficult, and sometimes impossible, are spinal caries, chorea, defects of sight and hearing, and the various psychoses.

I think that these observations indicate the defects in the practice of preventive medicine at the present day, and a very important question is as to who is to blame for this condition of affairs? Why do the laity so infrequently consult medical men in regard to the prevention of disease? Why does not the general practitioner devote more of his attention to preventive medicine?

In answer to the first question I should say that the laity are not aware of the extent to which preventive measures may be adopted in disease, and they do not fully appreciate the advantages to be derived from them from an economic point of view. If they did appreciate these advantages I am confident that they would much more often avail themselves of them. As regards the laity, therefore, defective education is chiefly responsible for the present state of things.

As regards the second question, as to why the general practitioner does not devote more of his attention to preventive medicine, the explanation is a little difficult. It cannot be because little interest is taken in the subject of preventive medicine, as there has never been a time in the previous history of our profession when doctors devoted so much attention to it. In our various medical societies it is gradually assuming more and more importance, and numbers of scientists are devoting their whole lives to the elucidation of its many problems. In this connection I need only refer to the marvellous results which have been obtained in tropical diseases and typhoid fever.

The medical profession cannot therefore be accused of neglecting the study of preventive medicine. The blame which is to be attached to it is on the ground that it has not given sufficient attention to the education of the public in matters which it is desirable that they should know in relation to medicine. The medical profession, for some reason, has taken the stand that it is well that the laity should know little about disease. That it has succeeded in keeping them ignorant is only too evident to every practitioner of medicine. This, in my opinion, is absolutely wrong. The education of the layman, with certain limitations, which should be determined by the family physician, is the essence of preventive medicine.

In this connection I should like to say a few words in regard to the recently established medical inspection of schools in this city. In my own opinion it may be described in a somewhat paradoxical manner as being absolutely wrong in principle, whilst at the same time there is no doubt that it is doing a certain amount of good, owing to the fact that it is educating the laity to appreciate the importance of preventive medicine. My reason for believing that it is wrong in principle is that it tends to undermine the influence of the family physician, who, if recognized, as he ought to be, as one whose special function consists in the prevention of disease, is in a position, owing to his intimate acquaintance with the history and environment of his patients, to do more good than the medical inspection of—say, a hundred—officers of any medical health department.

The medical inspection of school children by a medical health official can never be anything but superficial, because first, it

is easy to understand that the time which can be allowed for it is necessarily limited, secondly, it is impossible for him to obtain a complete record of each individual case in all its bearings, and thirdly, even if he detects conditions which render treatment advisable, the only means at his command for carrying such treatment into effect is by reporting the facts to the parents of the child in question, who are very apt to minimize their importance, and the more so because the physician recommending the treatment is a stranger to them.

I should like here, however, to emphasize the fact that I do not wish in the slightest degree to minimize the work which is now being done by our medical inspectors in connection with the schools, but I think that, in order to make it more effective, it is desirable that its character should be more educative and less inspective. Whilst I am a firm believer in the value of the periodic examination of both children and adults, I think that in the case of school children who belong to a family which is under the regular supervision of a family physician the certificate of the latter should be accepted, and the child should not in addition be examined by the medical officer of health. On the other hand if there is no family physician the examination should be made periodically by the medical inspector. This, however, should be thorough, and not limited to the mouth, throat and exposed parts, as is, I believe, the practice at the present time.

Too much stress cannot be laid upon the desirability of educating the laity in matters relating to hygiene, and if the results aimed at are to be achieved it is absolutely essential that this education should be commenced in early life, whilst the mind is still in a receptive state, as education from this point of view in later life is in the majority of instances doomed to failure. It is also of the utmost importance that the individual whose duty it is to give such instruction should be thoroughly well acquainted with the etiology and nature of disease. This requirement has largely been ignored in the past, as instruction in hygienic matters has, I believe, been usually given by teachers, who have very little knowledge of the subject of medicine from the point of view of the physician.

Under these circumstances, as was only to be expected, this instruction has been given in a very erratic and superficial manner, and has done but little to increase the knowledge of preventive medicine amongst the laity.

If it were made the general rule that all instruction in regard to hygienic and preventive measures should be given by qualified physicians (men giving the instruction to boys and women to girls) with the object of improving the physical and mental development of children, and preventing or minimizing the effects of disease, not only during the period of childhood, but also in later adult life, I believe that a tremendous impetus would be given to the progress of preventive medicine. The instruction given by the physician to the child attending school would form a suitable basis for that subsequently imparted by the family physician, and would render the latter much more effective. Moreover, it is my belief that every child should be taught the value of a family physician.

Society Proceedings

ACADEMY OF MEDICINE, TORONTO

HEMORRHOIDS *

By A. S. Moorhead, M.B., F.R.C.S. (Eng.).

This term was originally applied to signify enlarged varicose veins in the rectum. Subsequently it came to be applied colloquially to the result rather than the cause, and the term was veins—or hemorrhoids, as for example—bleeding from the rectum. Thus the term, from once having a definite, well defined meaning, came to be applied too generally. There may be bleeding from the rectum which is not the result of varicose veins—or hemorrhoids, as for example—bleeding from the rectum caused by ulceration of the colon or villous growth in the rectum. Another and better term commonly employed by laymen is the word "piles," which, as always understood, means tumors. Therefore the term "piles" describes the condition more accurately than the term "hemorrhoids" formerly did. At the present time, however, all medical men understand the term "hemorrhoids" to mean a tumorous formation in the rectum.

ETIOLOGY.

No class of patients is exempt from hemorrhoids. They occur almost as frequently in the rich as in the poor, in the strong as in the weakly, in the active as in the sedentary.

It is a disease most commonly found in middle life between the ages of thirty-five and fifty. It is not often found in children, although I have seen one case in a child of eight, and another in a child of twelve. Some authorities, such as Allingham, and Tuttle, have seen cases in children as young as three years of age.

In looking over the statistics of St. Mark's Hospital for the year 1911, during which period I had the opportunity of exam-

*Read before the Academy of Medicine, Toronto, April, 1914.

ining 1,600 cases, I found the proportion of females to males was as three to five. But it is thought by some physicians and surgeons that there are as many females as males affected, and that the reason that the female statistics are not higher is that the females do not consult the physicians or surgeons for this condition in so large a proportion as do male patients.

Heredity plays no part except in so far only as the son or daughter may have the same habits and mode of living as his or her father or mother.

Cathartics, such as aloin and calomel, often cause hemorrhoids if used in large doses and repeated frequently. I have seen a case caused by the repeated use of aloin. The tendency of repeated doses of aloin is to be cumulative.

Constipation is the most common cause. Nearly every patient that has hemorrhoids will complain of constipation in some form or other. Overeating also is supposed to lead to a similar condition, as it increases the flow of blood to the intestines. The large veins of the intestines become filled with more than the normal supply. This increases the column of blood in the super-hemorrhoidal veins and causes the veins of the rectum to bulge in towards the lumen and thus a swelling in that locality.

There are, in fact, innumerable causes such as cirrhosis of the liver, and tumors of the abdomen—physiological and pathological. The erect posture of human beings, undoubtedly plays a great role in the formation of hemorrhoids, as they have never been found in quadrupeds.

DIAGNOSIS.

Hemorrhoids are divided into two classes—internal and external—either for the purpose of description only, or for the purpose of giving them an anatomical location. The only way to make a correct diagnosis is by making a careful and thorough independent examination. You are not justified in relying on symptoms received from the patient. If you rely only on the symptoms as described by the patient, you will frequently be mistaken in your diagnosis.

EXTERNAL HEMORRHOIDS.

The diagnosis of external hemorrhoids is easily made, but I have, however, seen mistakes made in a small number of cases both in this country and in England by physicians who have seen but few cases.

The three conditions that may be mistaken for external hemorrhoids are, squamous celled carcinoma at the margin of the skin and mucous membrane; villous, and polypoid growths of the mucous membrane protruding out of the orifice. Squamous-celled carcinoma can be distinguished from hemorrhoids by the hard feel to the touch when examined by the finger, and also by some slight degree of fixation.

Polypoid, and villous growths can be distinguished by passing a speculum and observing where the base is attached, and by observing the appearance of the structures. Neither of these last two conditions has the dark venous color which is so characteristic of hemorrhoids.

INTERNAL HEMORRHOIDS.

Internal hemorrhoids cannot be diagnosed by symptoms, but only by inspection, and, unless they have been of very long standing and have become fibrous, cannot be diagnosed by a digital examination. I wish to make it clear that ninety per cent. of internal piles are of such a nature that they cannot be diagnosed for a certainty by a digital examination. The only certain method of correctly diagnosing internal hemorrhoids is by the use of a Kelly tube about one inch in diameter by three and one-half inches in length, in a good light. Insert the Kelly tube; then remove the plunger and gradually withdraw the tube. As the upper end of the tube passes the hemorrhoids they will project into the lumen of the bowel. Again, one must be careful to distinguish internal hemorrhoids from carcinomas. Cases have been diagnosed more or less frequently as hemorrhoids when, in reality, they were carcinomas, and the patients had been treated for the minor condition for many weeks and even months before the mistake was discovered and so the time for probable cure by operation had been allowed to pass. I have had the opportunity of seeing six cases diagnosed as hemorrhoids all of which were cancer.

Any patient presenting himself or herself for consultation and opinion, complaining of some symptoms or signs of disease of the rectum, should be examined both by a digital examination and some careful form of inspection. If both of these methods are not conclusive, then a third method should be employed, i.e., a pathological examination of a small section.

TREATMENT.

Treatment of complicated cases may be considered under two heads—palliative and radical.

In a great number of cases palliative treatment is all that is required, the most important points being a proper regulation of the alimentary functions and due cleanliness. Anything that causes congestion of the liver should be avoided, such as alcohol, highly spiced dishes, and excess of nitrogenous food. As constipation is the most common cause special attention should be paid to the bowels. The diet should be light and of such a character as will promote peristalsis—for example—ripe fruits. A laxative treatment should be taken regularly. The one most commonly used by all the patients at St. Mark's Hospital is *confectio simplex,* which contains a compound powder of jalap, powdered senna, precipitate of sulphur and syrup. It is most important to avoid straining at stool as this causes congestion of the parts. Sedentary habits must be corrected as far as possible and suitable exercise prescribed. A patient whose occupation requires sitting for a considerable part of the day should use a chair with a hard seat rather than with a soft seat. This class of patient should use cotton wool instead of toilet paper, and directly after wash the parts with warm water, and finally with cold water.

RADICAL TREATMENT.

This treatment will depend upon whether the patient suffers from only internal or external piles, or the two forms combined; and also on whether the condition is complicated or not by the presence of inflammation. In the case of external piles alone, they should be operated on, as they, after some little time, often produce cracks and fissures around the anus. If they are small, the patient will not need a general anesthetic, but by injecting a small quantity of five per cent. novocaine and

then waiting for five or ten minutes, the piles can be clipped away and the hemorrhage controlled by putting in a stitch of catgut or by a pad soaked in 1-5000 of bichloride and pressure applied. If the external pile is thrombosed, the thrombus should be let out and then all that is required is to apply the bichloride pads and pressure. If the external piles are large, a general anesthetic should be given and they should be then treated in the way described below.

In the case of external piles and mixed varieties it is proper to advise an operation when the patient is suffering much discomfort; and an operation is imperative when the patient is losing considerable blood, and also when the piles come down as he walks about, and when complications are present.

PREPARATION OF THE PATIENT FOR OPERATION.

The night before the patient is to be operated on he should be given one ounce of castor oil. The next morning he should receive a simple enema every hour until four have been given. The operation should be performed three hours after the last enema is given. Three-quarters of an hour before the operation the patient should be given one-quarter of a grain of morphine and 1-120 of a grain of atropine hypodermically. The patient is given a general anesthetic in these cases and placed in a lithotomy position, with the hips well over the table.

I strongly advise that under no circumstances should the sphincter be forcibly dilated as in nearly all such cases the sphincter is torn, and the patient does not get back control of the bowels for many weeks and sometimes even months. Any operation for hemorrhoids can be successfully performed without dilating the sphincter.

After the diagnosis has been completed the choice of operation has to be decided on, as not all cases are alike, nor should they be operated on alike. If the piles are gangrenous or suppurating, the proper method is to treat them by clamp and cautery. If they have no complications and there are only three large piles to be removed, they should be removed by ligatures. The ligatures that should be used are No. 6 silk. After stripping up the mucous membrane for some distance, say one and one-half inches, the ligatures should be tied as tight

as possible and cut long. A tube four inches long and three-eighths of an inch in diameter should be inserted in the rectum. This tube serves two purposes. If there is any bleeding in the bowel it allows the blood to come out through the tube and so attract the attention of the nurse or house surgeon at once. And secondly, it allows the flatus to escape.

Cases which have more than three or four piles, or are varicosed and bleeding from the mucous membrane of the rectum, should be operated on by what is known as the "Whitehead" operation (or complete removal of the mucous membrane). The "Whitehead" operation has been condemned by many surgeons, but, if properly performed, gives as good a result as any and often a more complete operation, as piles do sometimes recur after the other operations, but never after a "Whitehead" operation. This operation is sometimes condemned not from any inherent defect in the operation itself but from the fact that the surgeon removes too much mucous membrane. Not more than three-quarters of an inch should be removed—that is, the pile bearing area. There are surgeons also who claim that with a "Whitehead" operation a stricture may occur. In answer to that I can only say that during the year 1911 there were sixty-five "Whitehead" operations at St. Mark's Hospital, and on examining the records of these cases at the end of the year I found that in only two cases had strictures formed. One of these cases was the result of a "Whitehead" operation performed on a large villous growth. The other was performed on a patient who did not come back to the hospital for after treatment.

DISCUSSION ON DR. MOORHEAD'S PAPER

Dr. W. T. Harris understood Dr. Moorhead to say he operated on these cases without dilating the sphincter. Would Dr. Moorhead state his experience of the after treatment of cases so treated?

Dr. F. N. G. Starr said there were several points brought out by Dr. Moorhead that were very important. One was the necessity for making an examination before commencing treatment. He had seen many patients who had been under treatment for a few weeks, a few months, and one that had been under treatment for two years, and all of these had suffered from some other disease. They had not been examined by the doctor who treated them. The latter case mentioned was that of an elderly man, and when Dr. Starr examined him he found an inoperable growth of the rectum. These sins of omission are more likely to bring discredit on the profession than are the sins of commission, which may be many.

It is said that the erect posture of the human being is a causative factor in piles, but this disease is not limited entirely to the human species. In his own experience Dr. Starr had seen a pug dog with piles resulting from an epithelioma higher up in the bowel. The speaker agreed with Dr. Moorhead that it was better not to dilate the sphincter for operation. Dr. Starr had not dilated the sphincter at any of his operations for some five years back, that is since the time he was operated on himself for this trouble. Judging from his own experience in contrast with the experience of others whose sphincters had not been dilated, the discomfort following non-dilated cases was very much less. It is quite impossible to dilate the sphincter without tearing it. One does not tear the whole sphincter and the result of this is that after the operation there are the untorn fibres acting still and jerking on the tender parts. He was quite sure that the patients he had operated on in recent years whose sphincters he had not dilated suffered less afterwards than did the patients he had treated previously.

A useful adjunct in the after-treatment of these cases is to inject a considerable quantity of a half of one per cent. solution of novocaine into the sphincter and if necessary one may also

inject some urea and quinine hydrochloride. Patients he had treated in this way complained of no soreness at all after the operation and by the time the effect of the local anesthetic had passed off all soreness had gone.

Dr. John Hunter asked whether any of the operations referred to at St. Mark's Hospital were done during pregnancy, and asked whether it would be safe to do an operation for piles at that time.

Dr. Geo. Wilson congratulated Dr. Moorhead on the excellence of his paper. He thought the most useful point made by Dr. Moorhead was his advocacy of cleanliness as applied to the anal region. If those persons having external piles would after each movement of the bowel wash the parts with cotton wool, there would be few cases of inflamed piles and much of this sort of surgery would be done away with. He could not agree with Dr. Moorhead that the sphincter should not be dilated. The pile bearing area extended to the upper border of the internal sphincter and probably never goes beyond that. If one does not dilate the sphincter the view is not so good. There will be no pain after the ligature operation if it is done properly. Dr. Moorhead spoke of cutting the mucous membrane and then putting on the ligature. To prevent pain the skin should be cut as well as the membrane. If the sphincter is not stretched there will be pain every time the act of urination takes place, for contraction of the vesical sphincter is associated with contraction of the anal sphincter. Dr. Wilson agreed with Dr. Starr that the sphincter cannot be stretched without tearing parts of it. This tearing is of no consequence providing the operation is done gradually and the surgeon is not too rough about it. He regarded the Whitehead operation as never necessary.

Dr. Wallace Scott said that he had often operated on external piles under local anesthesia. He had also performed the operation under local anesthesia for internal piles. He said the great secret about using local anesthesia for these operations is to give the patient a one-quarter grain hypodermic of morphia before commencing to operate. In these cases a disturbing factor is often the fear of being hurt rather than the actual pain inflicted. With morphia this fear is largely taken

away. With a preparation such as this one can do the operation for hernia, can remove goitre, can take out an appendix, or even amputate a leg, and can easily do a pile operation. One kind of pile Dr. Moorhead did not speak of was the sentinel pile. In all cases Dr. Scott advocates stretching of the sphincter. If there is any sign at all of fissure the sphincter should be stretched, because that fissure will not get better unless the sphincter is paralyzed. By paralyzing the sphincter the mucous membrane is given a chance to grow over the site of the fissure. When a man says he has piles, one may expect anything, from a venereal wart to cancer of the rectum. From his statement all we know is that he has something in the neighborhood of the anus or rectum causing him trouble.

In regard to the use of the tube in the rectum, after pile operations, Dr. Scott said he never used it. Patients seldom complain after the operation unless the tube is put in. The Whitehead operation is perfectly correct. No bad results at all will come from it if properly done.

Dr. Bray said that the great distress from piles is caused by a protruding pile being held by a tight sphincter. If after the movement of the bowels the part is washed with cool water, and the pile is returned within the sphincter, the pain will be relieved and the danger of inflammation removed. One may use a little vaseline if necessary in putting the pile back. Such instruction will help the patient, but if a perfect cure is required then a surgical operation is necessary. If a pile is washed with cool water, using a swab of cotton wool, and returned every time the bowel moves, in ninety-nine cases out of one hundred no surgical operation will be needed.

Dr. Moorhead in reply said: "In regard to dilatation of the sphincter I agree with Dr. Starr. Jones, in South America, said no sphincter is dilated without tearing it. One surgeon in St. Mark's Hospital dilated every time, and his patients did not do as well as those of the surgeons who did not dilate. The patients remained in the hospital ten days after operation. I remember an old man who came into the hospital, sixty years of age. He just came in for operation for piles. He had been treated for this condition for two years. He had a great big carcinoma as large as one's fist in the rectum.

Dr. Hunter asked about pregnancy. Dr. Moorhead replied: "We did not have any of these cases there. I did not have any of those to treat."

The Whitehead operation is necessary in certain cases. If you cannot get the piles into three forceps, then a Whitehead is necessary. The best method to prevent contraction is to leave a little strip of mucous membrane between each ligature.

Dr. Wallace Scott, speaking again, said, "I would like to say that the treatment of piles must have changed remarkably since I was in London. When there I had to go twice a week to give an anesthetic at St. Mark's for hemorrhoid cases. The surgeon took a minute to dilate the sphincter, a minute for each pile, and the operation lasted as a rule about four minutes. The anesthetic we gave was ethyl chloride. If the anesthetist did not have the man thoroughly under the anesthetic in forty-five seconds there was trouble, because they began to dilate the sphincter then. These operations were all done by the ligature method."

ACADEMY OF MEDICINE, SURGICAL SECTION

At the March meeting of the Surgical Section of the Academy of Medicine, Toronto, with the chairman, Dr. Wallace Scott, presiding, the first case presented was one of traumatic hernia of the abdominal wall by Dr. Harris, who kindly acted for Dr. Gilmour, who was absent through illness. The patient, a well-built man of forty-five, was crushed between a car and an iron bar on the 30th of December last. When seen he was very badly shocked. There was a large hematoma over the left hypochondrium extruding well towards the middle line. There was a compound comminuted fracture of the right humerus together with some fractured ribs on the left side. The skin over the swelling was damaged and later ulcerated. When the blood was absorbed it was found there remained a large ventral hernia, oval in outline, with a transverse diameter of about nine inches and a vertical one of six inches. On further examination one could see that the left rectus abdominis had been torn across and retracted towards the pubis.

Dr. Scott pointed out that the abdominal muscles must have been "on guard" when the injury was received, else there would have been extensive damage to the viscera. He referred to a case where the patient had been crushed between a space one and one-half inches, with recovery.

Dr. Geo. Wilson, in discussing the treatment, thought that it would be possible to reattach the rectus. While there had been ulceration of the skin, there was no suppuration within the rectus sheath, and consequently no loss of muscle substance. Should that fail resort might be had to a filagree.

Dr. Harris remarked that it was very possible that the courts would be called to settle the case and at present did not care to interfere.

Dr. Malcolm Cameron pointed out that any possible bad result obtained by Dr. Harris could have only a moral, not a legal effect.

RESUME OF THE PROCEEDINGS OF THE ACADEMY OF MEDICINE, 1913-1914

The Seventh Annual Meeting of the Academy of Medicine, Toronto, held on Tuesday evening, May 5th, brought to a close the most successful year in its history.

The report from Council indicated the scope of the year's work, which included the appointment of special committees to deal with such important questions as "The Workmen's Compensation Act," "The Medical Inspection of Schools," "An Organized Campaign for the Control of Infant Mortality," and a permanent Committee to report on "Matters of Public Interest."

The trustees presented an excellent financial statement, coupled with the gratifying report that plans for the much-needed auditorium were ready for revision by the architect; also that this building, which is being erected by Mrs. J. W. F. Ross as a memorial to her late husband, one of the founders of the Academy, is but a part of a broad and comprehensive plan that when completed will amply meet the needs and growth of the institution for years to come.

The programme committee arranged for eleven stated meetings of the Academy in the last session. Of these programmes three were prepared and presented by Fellows of the Academy, while seven consisted of addresses by Sir Rickman J. Godlee, Bart., of London; Dr. C. F. Hoover, Cleveland; Mr. Herbert J. Paterson, London; Dr. Oskar Klotz, Pittsburg; Col. G. Carleton Jones, Ottawa; Col. Sir William Leishman, London; Dr. Robert Abbe, New York; and Dr. E. Hertoghe, of Antwerp. In addition there were thirty-four programmes arranged by the chairman and secretaries of sections.

A first step was taken toward the publication of Academy proceedings or transactions, when arrangements were made with Dr. J. Fleming Goodchild to prepare complete reports of all Academy and sectional meetings. Under the new system the editors of sections allot the various papers to the local medical journals for publication; and the publication committee in their report recommended to the Academy the securing of Dr. Goodchild's services for the ensuing year.

The report of the honorary secretary showed a fellowship roll of 396 (350 resident and 46 non-resident Fellows). These, with the addition of Dr. H. C. Burritt and Dr. R. A. Stevenson to the life Fellows, and the election of Sir Rickman J. Godlee, Bart., as an honorary Fellow, make up a mailing list of over four hundred. An increased attendance at Academy meetings and a greater activity in all its affairs was also noted.

The financial report, presented by the honorary treasurer, was most satisfactory, showing an increase in the receipts from fees commensurate to the greater expenditure involved, and leaving a savings account balance of $1,619.54, and current account $91.92.

During the year 217 volumes were added to the library. Of these 65 were purchased and 72 were presented. Nine journals were added to the current periodical list, making a total of 176; 61 by subscription and 115 given by Fellows or publishers. Nineteen medical organizations presented bound copies of their reports, transactions, etc., and 35 sent in unbound publications. In addition to these 1,726 journal numbers were received; also generous donations of books from Dr. Price Brown, Dr. Geikie and the library of the late Dr. Richardson. The remainder of the library committee's report is as follows:—

Banished from his own country and living the life of an exile on a lonely island, old man Prospero was able to exclaim, "My library is dukedom large enough." In "Love's Labor Lost" one of the characters says, "They are the books, the arts, the academies, that show, contain, and nourish all the world." Mrs. Hales in her "Three Hours" remarks that there is

> "No opiate like a book that charms,
> By its deep spell, the mind's alarms."

The library has come through a prosperous year. The purchases have been in excess of those of any year in the history of the Academy, and its friends have been mindful of it, making numerous and valuable gifts. To these donors the Academy expresses its warm appreciation, and trusts that their numbers may greatly increase.

One of the main objects for which the Academy exists is the formation of a large and useful collection of books, plates, journals, reports and transactions. As Napoleon could say to his soldiers that four thousand years looked down upon them from the Pyramids, so we can say that the medical wisdom of the world looks down upon us from our book shelves. Man's greatest and highest thoughts for man are to be found there.

Warriors glory in deeds of valor that mean the destruction of life; the inventor boasts of his achievements that enable him to commercialize the forces of Nature; the scientist exults in the discovery of some new truth, or plant, or animal, or star, or mineral; but the medical profession bends its energies in pursuit of ways and means for the relief of suffering, the cure of disease, and the prolongation of life—and all this regardless of personal gain. The white-winged dove of humanitarianism has ever perched upon the banner of the healing art, and there are no persecutions chargeable to the sons of Aesculapius.

Books have two main uses in such a library as we have here. The first is the utilitarian one of furnishing such information as we need from day to day, in the conduct of our practice. The other is the retrospective, or historical use, that points out the way medical thought has journeyed to attain its present proud position, as one of the most valuable of all the sciences. On the place occupied by books let me quote from Thomas B. Conant, a Canadian writer and poet of whom we should be proud:

"Books are best friends, responsive to our thought,
Relentless to neglect, but opening wide
Their inmost heart, as our fond will requires,
Ever pouring forth their wealth of wisdom.
Cherish old books. Misuse them not, nor scorn
Their ancient learning, though outworn it be:
For the deep thoughts of men abide."

Yes, the deep thoughts of men abide! In the intellectual world, as in the physical, energy once liberated is never lost; and the work of Hippocrates, Celsus and Galen is still bearing fruit. Storm and criticism have but enlivened the unfading green of the tree they planted with its roots, as they thought,

in the region of pure altruism. When Horace wrote of his friend and said that, in his odes he had raised a monument more lasting than brass, he spoke a great truth. Babylon, Troy, Carnak and Luxor have long ago crumbled to dust, but the writings of Hippocrates, Celsus and Galen remain with us as examples of honest toil for their fellow man under peculiar difficulties. In Russell Lowell's "Vision of Sir Launfal," we read:

> "Not what you give, but what you share,
> For the gift without the giver is bare."

And hence in the writings of the fathers of medicine we prize even their errors, realizing that "*Per dubitandum ad veritatem pervenimus.*" Morgagni was not always right, but we would not be without him. Once more let the Academy make an appeal to its Fellows to aid in the building up of its library. Let something of the giver go with the gift. Let there be an enthusiasm all along the line, and when you are giving a book to the Academy do not hesitate to violate the old rule of not letting the left hand know what the right hand is doing, but pass the word on, "Do you likewise." Hearken to the words of the wise. Quintilian declares that "A collection of books is the council of the good and the wise." Cicero tells us that "The most pleasing gift to the gods is to give health to your fellow men." George Dawson said, "A library is the consulting room of the wise man." From Sir Jonathan Hutchinson we learn that "A library is an institution for the advancement of knowledge." Again, Cicero said of such collections, "The most pleasing records of many benefactors." And, lastly, hear what Aeschylus has to say of those who spread knowledge, "Men worthy the song of Apollo" The finest gold in the world is knowledge, and recall, if you will, the words of the master mind of Shakespeare:

> "Foul cankering rust the hidden treasure frets,
> But gold that's put to use, more gold begets."

The best way to help yourself is to help others, and so, store your spare books in the library of the Academy of Medicine.

The time has now come when the Fellows might very pro-

perly suggest to wealthy citizens that gifts of money towards a library endowment fund would be most acceptable. Gradually the fund would grow, and all would be the gainer thereby. Such a fund would enable the Academy to purchase more freely than at present is possible the rarer books of first editions of such works as Graves, Watson, Hunter, Stokes, Cooper, Laré and so on.

The Academy should also make a collection of the photographs of all the Fellows, present and past, and keep up the practice in the future. An effort should be made to secure photographs or pictures of the noted members of the profession in Toronto, and throughout the province. With all these photographs there should be attached an historical note of explanation. This work would be comparatively easy now, but impossible if indefinitely delayed. Carlyle once said: "Historical portrait galleries far transcend in worth all other kinds of national collections of pictures." The picture of a place or a battle is as nothing when compared with a picture of a man of action.

This Academy should stand for three things—fellowship, a home and a library; and the master words in achieving these are love and work. The world's history makes it plain how love has lightened work, and how work has deepened affection for a cause. But to attain the ideal the Fellows must unite in a common aim and for a common purpose—the good of our *hiera Academia*. Thus banded together, whatever we do shall be a labor of love, and we shall be able to sing with Mrs. Browning in her "Aurora Leigh":

> "Our work shall still be better for our love,
> And still our love be sweeter for our work,
> And both commended for the sake of each."

For the thought and time that the members of the library committee have given, I bespeak the thanks of the Academy, but Dr. J. H Elliott, the indefatigable secretary, is entitled to special mention.

JOHN FERGUSON,
Chairman of the Library Committee.

A vote of thanks to the retiring president, Dr. H. J. Hamilton, was moved by Dr. R. A. Reeve and seconded by Dr. H. A. Bruce.

Opportunity was taken to convey also to Dr. Harley Smith, the retiring honorary secretary, an expression of appreciation for the tactful manner in which he had never failed to discharge, during his four years' tenure of office, the often onerous duties involved. Dr. John Ferguson, chairman of the library committee, also received a hearty vote of thanks from the Fellows for his untiring efforts and generous donations that have contributed in so large a measure to the success of this most important part of the Academy activities.

The report of the committee on nominations was carried unanimously, and the Council for 1914-15 will be constituted as follows:

MEMBERS OF COUNCIL, 1914-15.

President—Dr H. B. Anderson.
Vice-President—Dr. W. H. B. Aikins.
Honorary Secretary—Dr. J. H. Elliott.
Honorary Treasurer—Dr. W. A. Young.
Past President—Dr. H. J. Hamilton.
Elective Members of Council—Dr. Harley Smith, Dr. R. A. Reeve, Dr. Edmund E. King, Dr. N. A. Powell, Dr. Graham Chambers, Dr. F. A. Cleland, Dr. J. T. Fotheringham, Dr. B. L. Riordan.

CHAIRMEN OF SECTIONS.

Medicine—R. D. Rudolf.
Surgery—C. L. Starr.
Pathology—Oliver R. Mabee.
Ophthalmology and Oto-Laryngology—P. G. Goldsmith.
State Medicine—C. J. O. Hastings.
Pediatrics—D. McGillivray.

POST-GRADUATE INSTRUCTION

The Medical Faculty of McGill University begs to announce that it will offer instruction to graduate students for a period of two weeks immediately following the close of the undergraduate session, i.e., from June 1st to June 13th inclusive.

The work will this year be essentially clinical, and every facility will be offered for the study of the abundant material in the outdoor and indoor departments of the Montreal General and Royal Victoria Hospitals. The material in the new Maternity Hospital will also be made available for clinical study.

While the work will be mainly clinical and designed with a view to affording a general review for the practitioner, special courses may be arranged either in the laboratories of the College or in the Hospitals.

In the Royal Victoria Hospital the following will be offered:

Department of Surgery.—Four operative clinics weekly by Dr. G. E. Armstrong. Two operative clinics weekly by Dr. A. E. Garrow. Two operative clinics weekly by Dr. E. W. Archibald. Visits will also be made to the wards for instruction in surgical diagnosis and post-operative treatment.

Department of Medicine.—Dr. W. F. Hamilton will visit the wards twice weekly and will give instruction in physical diagnosis and treatment. Two visits weekly will also be made by Dr. John McCrae.

Department of Gynecology.—Two operative clinics weekly by Dr. W. W. Chipman and the same number by Dr. J. R. Goodall. In this department also there is abundant out-patient material which will be available for visiting graduates.

Department of Oto-Laryngology.—Two clinics weekly by Drs. H. S. Birkett and W. H. Jamieson.

Department of Ophthalmology.—Two clinics weekly by Drs. J. W. Stirling and W. G. M. Byers.

Department of Neurology.—Two clinics weekly by Dr. Colin K. Russel.

Department of Orthopedics.—Two clinics weekly by Dr. W. H. Turner.

Department of Pediatrics.—Two clinics weekly by Dr. F. M. Fry.

Genito-Urinary Diseases.—Two clinics weekly by Dr. J. W. Hutchinson.

Diseases of the Skin.—Two clinics weekly by Dr. P. Burnett.

In the Montreal General Hospital the following will be offered:—

Department of Surgery.—Two operative clinics weekly by Dr. A. T. Bazin. Two operative clinics weekly by Dr. E. M. von Eberts. Ward rounds will also be made for the purpose of studying post-operative treatment and for instruction in surgical diagnosis.

Department of Medicine.—Two ward visits weekly by Dr. F. G. Finley. Special attention will be paid to diseases of the heart, with demonstrations on the use of the electro-cardiograph.

Department of Gynecology. Three operative clinics weekly by Dr. F. A. L. Lockhart.

Department of Ophthalmology and Otology.—Three clinics weekly by Drs. G. H. Mathewson and Hanford McKee.

Department of Laryngology.—Three clinics weekly by Drs. H. D. Hamilton and R. H. Craig.

Department of Neurology.—Three clinics weekly by Dr. D. A. Shirres.

Pediatrics.—Two clinics weekly by Dr. G. G. Campbell.

Orthopedics.—Three clinics weekly by Dr. A. MacKenzie Forbes.

Genito-Urinary Diseases.—One clinic weekly in venereal diseases and one in genito-urinary surgery by Dr. R. P. Campbell.

Diseases of the Skin.—One clinic weekly by Dr. Shepherd. Two clinics weekly by Dr. G. G. Campbell.

Department of Obstetrics (Montreal Maternity Hospital).—Two clinics weekly by Dr. D. J. Evans. Two clinics weekly by Dr. H. M. Little. Ward rounds will also be made, special attention being paid to instruction in modern obstetric technique.

For the above work, which is entirely clinical and designed to meet the requirements of the general practitioner, no fee will be charged.

For any special course which may be arranged a fee commensurate with the extent of the course will be charged.

Visiting graduates will be required to register their names and addresses in the office of the Registrar of the Medical Faculty, New Medical Building.

For further information address, Jno. W. Scane, M.D., Registrar of Faculty of Medicine, McGill University, Montreal.

UNIVERSITY OF TORONTO WILL DISTRIBUTE BIOLOGICAL PRODUCTS

The Department of Hygiene of the University of Toronto has undertaken to prepare and distribute various biological products. These include diphtheria antitoxin, tetanus antitoxin, anti-meningitis serum, and rabies vaccine for the Pasteur treatment.

The prices of these products are to be only slightly above actual cost. The department has already entered into arrangements with the Provincial Board of Health of Ontario for the distribution of diphtheria antitoxin and rabies vaccine.

The proceeds of the sale of these substances, after paying the cost of maintenance, will go toward aiding research in preventive medicine and hygiene. Under the plan as it is arranged in Ontario all these biological products will be available at exceedingly low prices, and it is hoped that these prices can be reduced still further at a later date.

The work will be under the direction of the members of the Department of Hygiene.

The Physician's Library

Psychanalysis: Its Theories and Practical Application. By A. A. Brill, Ph.B., M.D.; Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company. Cloth. $3.00 net. Sole Canadian Agents, The J. F. Hartz Co., Toronto.

This book is affectionately inscribed to Prof. French and is a reproduction of his ideas, together with the results obtained by treatment during a number of years by the author on the principles enunciated by French. The author wisely directs attention to the application of psycho-therapy to the so-called "borderline" cases, viz., the neuroses and mild psychoses which form the greatest proportion of clinic and dispensary practice, the treatment of which heretofore has been wholly inadequate, although perhaps first in importance. The various forms of psychic therapy are discussed and the advantages of psychanalysis over all others is maintained. In hypnotism, for example, the personality of the patient is disregarded, and he considers this fatal to success. He contends that failure in the treatment of suitable cases is due to a lack of comprehension of French's theories and that success can only be obtained by a long and patient study of these, including the interpretation of dreams, the sexual theories, and the psychopathology of everyday life.

Full details of the method of procedure are given and also suggestions as to the selection of suitable cases. The latter especially is important, as this field is by no means as large as is generally supposed, nor is it claimed that everything is cured. It is, moreover, carefully pointed out that only those who are themselves free from all sexual resistances, should do psychanalytic work.

Whatever the ultimate results of the practical application of French's theories may be, they have certainly afforded an

increased insight and a most valuable addition to our knowledge of the neuroses and the psychoses. We cordially recommend a careful study of this work to all who desire to be up to date in this most important and most neglected branch of medicine. D. C. M.

The Operating Room and the Patient: A Manual of Pre- and Post-operative Treatment. By Russell S. Fowler, M.D., Surgeon to the German and the Methodist Episcopal Hospitals of Brooklyn, N.Y. 3rd Edition. W. B. Saunders & Co., Philadelphia, 1913; The J. F. Hartz Co., Toronto.

When the first edition of this excellent manual came out in 1907, it proved to be exactly what was required as a guide to the organization and running of this department of a modern hospital. No less than three copies of it were well thumbed and worn by the assistants and nurses in the operating rooms where the writer of the present review is accustomed to do his work. He received handsome dividends on the money invested in their purchase in notable improvements in the assistance given him.

The third edition comes to us as a book of over six hundred pages.

It is replete with information, accurate, well tested and clearly set forth. It does not run to fads or unduly exalt individual preferences. In reading the book one becomes impressed with the fact that its writer is in close touch with the best technique of American clinics and that the safety and comfort of the patient are, with him, dominating considerations.

Anyone who has even occasionally to operate or to assist in the preparation for operation will find it distinctly advantageous to have Dr. Fowler's work within reach.

The need for including a section of some seventy pages on bandaging in this edition is open to question. The chapter is well written and is illustrated from photographs originally made for Geo. R. Fowler's Surgery, but most of those who use the work will, we take it, have passed beyond the stage in which the art of bandaging is acquired before they come to consult this manual.

The subjects of anesthesia, of hemorrhage, and of shock, are discussed with clarity and with precision. The latter half of the book is devoted to a consideration of operations upon various tissues, organs and regions, and even for surgeons of wide experience it will well repay the closest study.

Like all publications now coming from the Saunders Co., the volume before us is issued in a form reflecting credit upon all who have had to do with its production. N. A. P.

Gunshot Injuries. How they are inflicted, their complications, and treatment. By Colonel Louis A. Lagarde, U.S.A. Medical Corps (Retired), late Commandant and Professor of Military Surgery, U. S. Army Medical School; Professor of Military Surgery, Medical Department, N. Y. University, etc. Prepared under the direction of the Surgeon-General, U. S. Army, and published by authority of the Secretary of War. New York: William Wood & Co. 1914.

The author of this volume has long been recognized as the leading American authority upon the subject now presented. His is the first and only monograph bringing up to the present hour what is known regarding wounds inflicted by modern types of firearms. Otis' great work on the surgical history of the War of the Rebellion was in its day the reference work of choice by surgeons the world over. The wounds with which it had to deal were caused by large-calibre, low-velocity missiles.

Later, when mantled bullets of about 30 calibre and velocities approximating 2,000 feet per second came into use in all armies, and when the antiseptic system gained full endorsation, the Civil War experience had little beyond historic value. Dealing with this later era we had such notable books as those by Makins, Stephenson, Delorme and Pettingen. These gave us satisfactorily the experience gained in the South African, Spanish-American and Russo-Japanese Wars. Now has come another change! A pointed bullet, jacketed and with its centre of gravity far back has been adopted by the greater powers, and its speed has been increased from 2,700 to 2,900 feet per second. When such a missile encounters hard tissue it tips and turns over, and the wound it inflicts is like those of shrapnel. So far it has been tried out only in the Turko-

Balkan war, when it demonstrated beyond any question that if war in the past was what Sherman said it was, there are no words in any language by which war in the future can be described.

Colonel Lagarde's book deals first with arms, ammunition and ballistics, then with injuries and treatment by regions, and finally with the medico-legal aspects of gun-shot wounds and with X-ray methods of localization. It is excellently well illustrated and printed, but is not by any means free from typographical errors.

No one liable to be called upon to care for bullet wounds can afford to be without this signal contribution to advanced surgery. N. A. P.

Teaching Sex Hygiene in Public Schools. By E. B. Lowry, M.D. Author of "Herself," "Himself," etc. Chicago: Forbes and Company. 1914.

Notwithstanding the fact that a great many people are opposed to the teaching of Sex Hygiene to young people, the fact remains that it is the only way to enable boys and girls to avoid the pitfalls that are so frequently yawning to engulf them on every side. Dr. Lowry's book is along the right lines and we hope it will receive wide circulation. W.A.Y.

NEW BOOK COMING

Be we financier, industrial worker, navvy, scavenger, or merely a gentleman, we all suffer to a greater or less degree from the ills which our vocations or avocations engender. Just how to prevent, ameliorate or cure these but partly understood ills, should no longer be a puzzle to the man, employer or physician, because a reliable and essentially practical book is soon to appear, under the joint editorship of Dr. George M. Kober of Washington, D.C., and Dr. Wm. C. Hanson of Boston, Mass. Among the contributors are such authorities as Sir Thomas Oliver; Legge (London), Teleky (Vienna), Devoto (Milan), Edsall (Harvard), Alice Hamilton (Chicago), etc., etc. P. Blakiston's Son and Company, Philadelphia, will publish the volume.

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The Canadian journal of medicine and surgery

Biological
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